AMAZING STORIES

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OCTOBER

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THE POOL OF LIFE
By P. Schuyler Miller

Also
SCIENCE FICTION
By
A. Hyatt Verrill
Neil R. Jones

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* * *

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Some will be offended by the amazing frankness of this book and its vivid illustrations, but the world has no longer any use for prudery and false modesty.

A FAMOUS JUDGE SAYS THAT MOST DIVORCES ARE CAUSED BY SEX IGNORANCE!

Normal, sex-suited young people are torn apart because they lack sex knowledge.

WHAT EVERY MAN SHOULD KNOW

The Sexual Embrace
Secrets of the Honeymoon
Mistakes of Early Marriage
Homosexuality
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How to Regain Virility
Sexual Starvation
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To Gain Greater Delight
The Truth About Abuse

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Joys of Perfect Mating
What to Allow a Lover to do
Intimate Feminine Hygiene
Prostitution
Birth Control Chart
How to Attract and Hold Men
Sexual Slavery of Women
Essentials of Happy Marriage
The Sex Organs

HOMOSEXUALITY...SEX ABNORMALITIES

Do you know about the astounding world of "half sexes"? They crave the companionship of their own sex...their practices are unbelievable to the normal mind...yet you should understand them.

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You want to know . . . and you *should* know *everything* about sex. Sex is no longer a sin . . . a mystery . . . it is your greatest power for happiness. You owe it to yourself . . . to the one you love, to tear aside the curtain of hypocrisy and learn the *naked truth!*

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Science Fiction

Vol. 9 OCTOBER, 1934 No. 6

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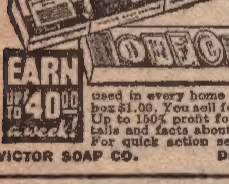

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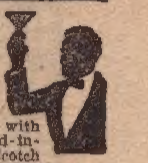

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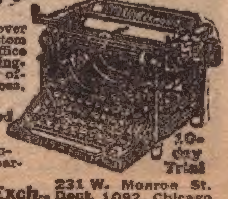

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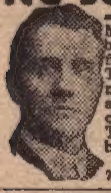

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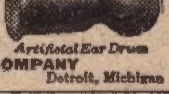

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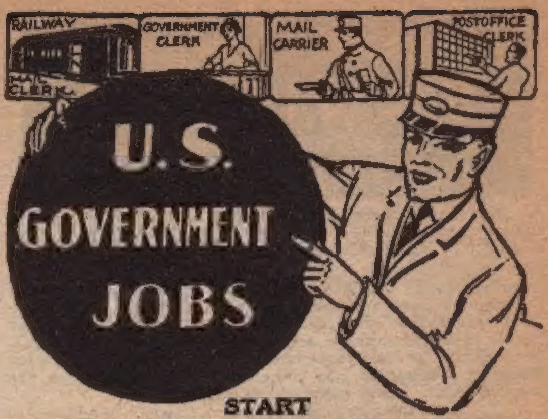

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T. O'CONOR SLOANE, Ph.D., *Editor*

Editorial and General Offices: 222 West 39th Street, New York, N. Y.

Extravagant Fiction Today . . . . . Cold Fact Tomorrow

Type and Printing

By T. O'CONOR SLOANE, Ph.D.

JUST as the early manuscripts may be safely pronounced superior to those of the present day, the early type are so attractive that some of the best examples of printing go back to the sixteenth century.

The Elzevirs who produced a great many small sized books, 16 mos, we would call them now, as well as larger ones, used a type with little shading in the letter and which for its size was probably one of the easiest to read, and was most saving to the eyes of the readers. The name, as applied to type, still persists, and a period of decay which is imputed to typography was salvaged to a certain extent by such printers as these. Any number of type faces have been drawn, and to-day we find the word "caslon" used to designate a slightly antique class of letters, which are used in great quantity for everyday work. It is due to William Caslon. He was born in 1692 and died in 1766. He was recognized as the greatest type designer and type-founder of his day. The earliest example of his printing type in book form is in the library of the American Antiquarian Society, Worcester, Mass. Some of his old forms and matrices for type are preserved in England. His type was abandoned for a while, but was revived in 1845 and is now used very extensively.

One interesting thing which may have led to type-printing were initial letters engraved on wooden blocks. The body of a book might be written, leaving blank spaces for ornamental initials, and these were often printed in from what were really type. Otherwise the manuscript would have depended on professional illuminators to do the initials by hand.

The Mazarin Bible of 1454 is a beautiful piece of printing—so regular and true to line and width of column that it must have been the work of a man experienced for years in printing from type. This work, the Vulgate Bible, is a monument of perfection, and its date is thirty-six years ahead of the year of Columbus' crossing of the Atlantic. The point to be made is that we are absolutely ignorant of the genius who invented and developed the making of type. There is every probability that it was kept a profound secret for what we may term "good business reasons."

It was not far from the days of the Elzevirs that italic type faces were invented and numbers of books were printed in that type. A peculiarity of the italic type is that it seems of a lighter tint than the regular type with which we are so familiar, although printed with exactly the same ink. It originated in Italy with a printer named Aldus Minutius, in Venice.

Probably few people have an idea of what a complicated thing a type is. Within recent years there have been revolutionary changes in printing. In one class of machines a line of type is set up in one single piece, the well known linotype machine does this and it is fair to say that most of the printing is done on linotype machines. Then there are other machines which make and set up their type all in one operation. One way of operating these involves the use of perforated paper which is perforated on a machine, different holes giving different letters, but if we go back to the old-fashioned type of which there is constant use made and which will always be used in some classes of work, we find that it is a curiously complicated production.

The illustration shows a modern type and the principal parts are indicated by numbers and the description tells what each part is. Yet even what is shown here indicating some ten principal parts, is incomplete as there are two or three others which can be named. Thus we may be sure that few people know what a serif is. It is the fine horizontal or inclined line at the top or bottom of some letters. There are generally two of them; one pointing to the left and the other to the right. There may be several serifs on a single letter. It is interesting to go through the description of others of these numbered parts. Sometimes letters have no serifs and these types can be recognized in display type very often.

It is absolutely essential that each type should sit firmly on its base. It will be seen that there is a groove crossing the bottom of the type. This gives it two feet to be supported on, so that there will be no central irregularity to cause it to rock. The grooves on its sides are called nicks. This enables the typesetter to know by the feel whether he is setting the type right-side up or not by feeling for the nick. Other nicks tell him perhaps what font he is working with.

Very large books containing millions of letters have been set up from such type as are illustrated, each one to be right-side-up, in its proper place and spacing has to be introduced by putting little bars of type metal, called quads, between the words. In the older works of printers and copyists, it will be found that very little use was made of spacing. Putting quads between letters of a word is bad practise.

We are told that as a rule heat expands and cold contracts anything solid, liquid or gaseous, which is subjected to its action. In water we have a curious exception to this rule. For if we cool water, it will become smaller and smaller up to a certain point about twelve degrees F. above the freezing point. When it has reached this temperature it is at its greatest density and as it cools still

further, it expands a little. When the point of freezing is reached, a sudden change takes place. The water becomes ice and in doing this it expands nearly ten per cent. As it forms ice, it develops an enormous pressure if an attempt is made to confine it. An object cast from water in a mold would fill the mold completely and possibly would burst it due to this expansion.

Type is made from an alloy of lead and antimony. This alloy acts in solidifying like water. Any object cast with it, if it does not strain or break the mold, will give a perfect reproduction. Accordingly this alloy represents essentially what is known as type metal. Other metals are sometimes alloyed with the lead and antimony. It follows that, if the mold is accurate, the type metal filling it and expanding slightly, will give a perfect type, at least as far as its face and sides are concerned. The foot will need machining or planing to finish it.

The material for paper up to about the year 1862 was virtually nothing but rags, as the material, which was waste fabrics, was called. This had to be cleaned with the greatest care and all foreign substances removed with scrupulous exactness. But the demand for paper began to increase and more and more paper was wanted. A product called esparto was imported from Spain and this was an excellent material for addition to the rags. It was a sort of grass and we feel that there should be a chance of utilizing other grasses for paper making. The forests are now being cut down and depleted to supply wood pulp as the material for paper. The depletion of the forests for paper is put at five per cent of the total consumption of wood on this continent. Wood provides a comparatively pure cellulose. The wood is ground up by a species of mill or it is attacked by chemicals so as to break it down and get it into the form of fine cellulose pulp. It appears, therefore, that about the year 1862 what we may term revolutionary changes in the manufacture of paper as regards its material began to take place, and this has led to a curious investigation that may have quite serious results from the standpoint of money.

Previous to 1862, going back perhaps twelve or fifteen years, from that date early editions of the works of celebrated authors were supposed to have been published. There is a great fad for collecting old books and their value is followed up by collectors studying the different reports from auction rooms and the prices are constantly advancing. There are not very many of these books and that may have been what started the investigation. It was found that in many cases the paper was not pure rag paper, that wood pulp could be found in it by chemical examination. This discovery was supplemented by the study of the faces of the type. These were found to have a modern touch about them, which indicated that they were not made prior to a comparatively recent date.

The collectors of old and rare books, book lovers or bibliophiles, had attended the auction sales and purchased these alleged rare books, but a recent investigation based partly on the type face and partly on the chemical or microscopic examination of the paper, was claimed to have brought out the fact that a quantity of counterfeit reproductions of rare old books was carried on in England with great success, years later than 1862. Many books, otherwise of ordinary or no real value, were purchased at extravagant figures by collectors and now presumably some of these books are worth nothing.

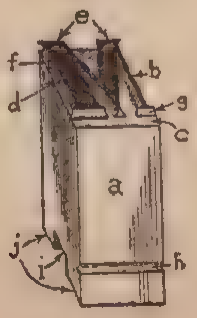
There is, however, a way to get out of it. Sometimes an artist will have a follower who will paint practically as well as he and who can copy all his mannerisms. This was done with the painter Corot, and the falsified pictures in some

cases, even when known to be false, bring high prices. There is a possibility if all these books, we have referred to as objects of the collecting propensity, are known to be counterfeits, that they may acquire a special value, so that their owner can be reimbursed to a considerable extent if he has paid high prices for supposed originals, that is to say, the prices of real originals of these books. Like the Corot reproductions of paintings, these reproductions of printings may eventually bring very good prices, though known to be counterfeit, and their possessors may recoup part of their loss.

Quite long books have been written on the subject of printing and type so as a supplement to this article, exemplifying how much of interest there is in the subject we give an illustration of a type with letters to indicate some of the parts as described in the accompanying text.

a is the shank which is the rectangular prism of type-metal which supports the face. Its special function is to provide a rigid resistance to the compression which it is subjected to when it is locked in position (in the "lock-up"). *b* is the face of the type. *c* is the shoulder, the flat upper surface of the shank completely exposed. *d* is the beard. *e* is supposed to indicate two serifs, little projections to the right or left at top or bottom of the letter. Often type have no serifs; they are called sans-serifs. The arrows should have been a little more spread in the diagram. *f* is the stem, the vertical stroke of such letters as the one shown widening a little at the base or beard *d*. *g* shows serifs at the foot of the letter. *h* is the nick. It varies in different fonts, some fonts having as many as four nicks to distinguish them. The nicks also are to be felt by the fingers of the compositor, so that he will be sure to set the type right side up. *i* is the groove and *jj* are the feet which ensure the true support. The waistline is determined by the tops of such letters as a, m, n and others ignoring the slight rise of round letters such as o and c above the waistline. The base line is the line of the foot of the letter in a type. Ascenders are such letters as d and f which extend above the waist-line; descenders are letters going below the base line, such as g, j and p. The kern is the part of the face which sometimes projects beyond the shank, *f* and *j* are the most frequently kerned letters. Some printers consider kerns a nuisance! A ligature is where two letters are practically on one shank. This may sometimes be seen in *f* followed by *i* the latter coming directly under the top of *f*.

It is fair to say that many pages have been written on this subject by those who were true devotees of the art.



The Pool of Life

By P. SCHUYLER MILLER

This story deserves to be characterized as very individual, almost unique. There is a mixture of the everyday world and of a strange world of mystery. The whole is carried out to an end which brings it all into unity. We feel that P. Schuyler Miller has produced an unusual narration.

CHAPTER I

The Man on the Train

THE man in the seat ahead of me bought an extra at Bennington in Vermont. The newsboys were making a big fuss over it, but they do that over things as unimportant as a merger of local cheese-merchants. I distrust extras.

The fellow ahead looked like the sort who always buys them, if only to see what horse came in at Saratoga. He was obviously from the city—New York, probably—for he had been there when I got on at Albany. For all that, I liked his looks. Then he raised the paper a little higher and I came up standing with a yell, that woke the whole car.

Big red headlines sprawled across the page.

"Granby Massacre. Village Wiped Out"

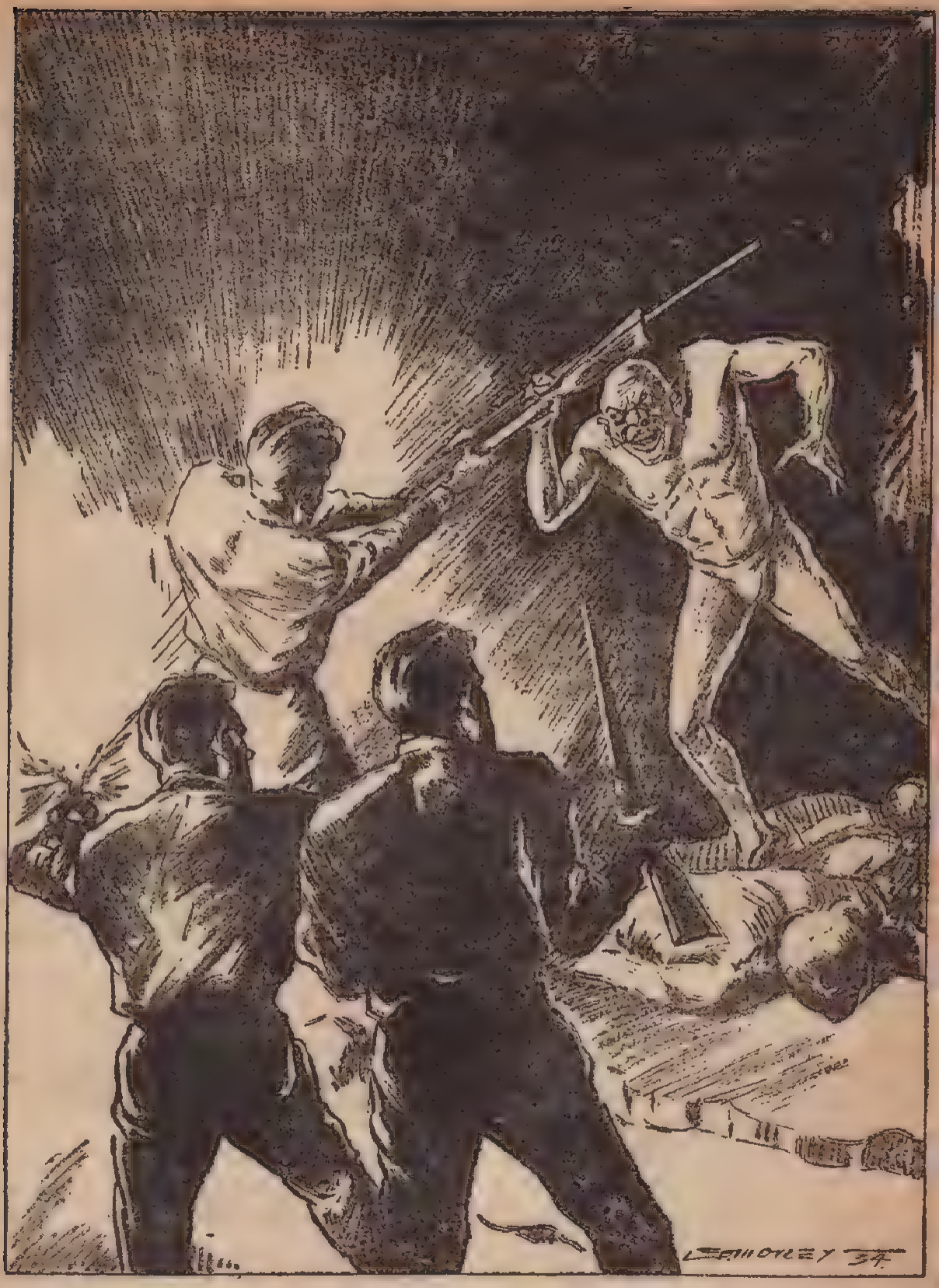
I snatched the paper out of his hands. Granby was *my* village—my home town! I was bound there for my cousin's wedding. And now—this!

Granby Massacre. Village Wiped Ou. Nude Maniacs Slaughter Villagers. Ou lying Farms Razed

RUTLAND, Aug. 31.—William Cooney, an employee of the Rutland Post-Office, this morning made a discovery that has horrified the entire state. Delivering mail to the smaller towns east of Rutland, he found the village of Granby a mass of smoking ruins, its streets littered with the horribly mutilated bodies of its three hundred inhabitants. Returning immediately to the nearest town, Hawford, he notified the local authorities and telephoned to Rutland.

A posse from Hawford found the entire population of Granby and of the neighboring farms, slain among the ruins of the town. A pitched battle had been fought in the streets between the half-clad villagers and their fiendish assailants. The bodies of the dead were hideously mangled by jagged instruments and their scalps torn from their heads. Men, women and children alike were destroyed in the mad frenzy of the killers.

No survivor exists in Granby or the outlying farms to describe the attack.



One lay dead at my feet and I saw Hewitt's gun come smashing down to split the skull of his second victim like a ripe melon; Prentiss let go three shots that brought three of the dazzled creatures crumpling to the ground.

The sole clue to the nature of the slayers lies in three naked bodies found among the smoking ruins of the village church, in which women and children had gathered for protection. Badly charred by the flames, these bodies have been pronounced those of microcephalic idiots of an extraordinary type, who may have escaped with other maniacs from a private asylum and attacked the villagers in an insane fear of capture. Police officials are investigating this possibility.

PEOPLE were crowding around me, pointing, asking questions. The man ahead had turned in his seat and was trying to make himself heard. Then someone came elbowing down the aisle and took me by the arm.

"Come on," he said into my ear. "Let's get out of this. We have to talk."

He led me back into the smoking car. I noticed that the young fellow from the seat ahead had followed us. He closed the door behind him and stood with his back against it, staring at us. I, for my part, was looking at the man who had brought me here—a square-jawed, blonde Hercules with keen gray eyes behind gold-rimmed glasses, and blunt-fingered, powerful hands. He seemed to be about my own age.

The man from the seat ahead spoke first. We had instinctively waited for him. He was wiry and dynamic, the sort who always speaks first.

"I'm Ted Hewitt," he announced, "reporting this thing for the *'World.'* Who're you, and what do you know about it?"

The other man answered for me. "This, I imagine, is Dr. John Cady, whose family has lived in and near Granby for a good many years. I am Howard Prentiss.

"I was to marry his cousin, Dorcas, to-morrow."

CHAPTER II

The Granby Massacre

IT was two hours before that creeping train reached Rutland. We came to know each other pretty well by then. We were united by a common bond—Granby, and the thing that had happened there. Two of us had a greater, grimmer bond. Dorcas Cady had lived high against the mountain above Granby. She was my cousin, and she was to have been his wife.

I had never met Howard Prentiss—never chanced to be there when he was. He was Professor of Anthropology in some small eastern college that still stuck to the old liberal arts curriculum. He had more of a name than most in his position. I could see that the reporter, Hewitt, recognized it. There were not many men who knew more about the early races of Man, here and abroad. Dorcas had met him as a student, then later when he came to Granby to investigate a find that a local collector had made. He stayed for the duration of his vacation, and longer. And I had been on my way to their wedding.

His face was expressionless now, as he questioned the reporter, but his hands were white-knuckled where he grasped the arms of his seat. I knew what he felt.

"Hewitt," he said in his low, clear voice, "you know more about what has happened than we do. You will have seen the confidential press reports and are here to confirm them for your paper. Tell us."

Hewitt hesitated. The ethics of a scoop are pretty rigid. What he saw in our faces decided him.

"I don't know much," he replied slowly. "This man Cooney was on the mail truck, a new man to the route, and he got there rather late. Granby is pretty well down in the hills, and what he saw

first was a farm up on the mountain, burned to the ground and still smouldering. Then there was another, closer to the road, and he could see bodies lying in the yard. He stepped on the gas then, and when he got to Granby he found what the paper says. It was wiped out. Every being dead—cut to pieces—even the animals, and the town set afire. It must have happened in the night some time, because they were mostly half dressed, as if they ran out into the street and were chopped down when they opened the door. This maniac angle is new, but it sounds likely. Do you know of any asylum up in there?"

Prentiss shook his head. "There is none, Hewitt," he said quietly. "That was a newspaper-man's guess. I have been all through that country, with Dorcas and with other men who have lived all their lives there. I know every barn and back road within twenty miles of Granby. There is no insane asylum in there."

Hewitt was plainly puzzled. "But where could they come from?" he demanded. "It was the coroner said they were lunatics. He's a doctor. He ought to know. Isn't there some place where they could be hidden—in a cave, or something? There are caves up in there."

"You don't know Vermont," Prentiss told him. "No one could hide a thing like that, not even in a cave. Lunatics have to be fed like anyone else. Do you realize how many there must have been? Three hundred people were cut down, by sheer brute force and weight of numbers. It was no ambush. There was time to get the women and children into the church and surround it. It was war—frontier war—of a kind that Vermont has not seen for three hundred years. There must have been hundreds of them, mad with blood lust, utterly careless of death or injury. An asylum that could house that many would be known all over the state—all over this part of the country. It would have to be. The authorities would see to it."

"But—good Lord," protested Hewitt. "It *happened*. Whether it could or not, it *did*. They found three of them—idiots, microcephalics, they call them. They had to come from somewhere."

PRENTISS nodded, slowly. "They came from somewhere—yes. But they came from no asylum. There is more than escape from an asylum behind this. You know, Hewitt, microcephalics are not the sort of creatures that would do this thing. You must have seen them in circus side-shows as 'pin-heads'. If you harm them, of course they will fight back, as animals do, but they could never have done this thing. There is something more behind this massacre—something terrible. Perhaps this is only the beginning."

It was not long before we knew how right he was. In Rutland we hired a car. We found the roads picketed, a cordon of troops thrown around Granby, watching the roads and hill-tops. Heliographs were flickering from the mountains. Something—no man knew what—had struck and vanished. Somewhere in that guarded area the killers must be lurking. They would not escape!

Hewitt got through on his reporter's card and Prentiss and I as relatives of the dead. We were known to most people in the Granby region. Their faces told us what we had dreaded. The Cady farm had not escaped.

Six hours after William Cooney had driven down into the Granby valley smoke was still hovering heavily over the fields and rising in thick, sluggish columns from the hillsides, where farms had been. A line of licking flame was creeping up over the mountain, where the woods had caught. We could see the wavering black line that showed

where men were fighting the fire back.

Prentiss touched my arm. Always when I came down around this curve in the road, I would look up and see the white farmhouse and red barns of the Cady place, nestling under the great elms, high up on the flank of the mountain above Granby. The elms were seared and yellow, and beneath them an ugly black stain lay on the green hillside. Black dots that were people were coming slowly down the old hill-road behind a covered truck.

"There is nothing that we can do there," he said dully. "I prefer not to go up for the present. What I can do will be below, in the village, where the bodies were found. Will you wait for me?"

He was right. A week or a day ago we would have been bumping up that winding road in high, watching at every turn for Dorcas or one of the youngsters. They loved to come down the hill to meet us—to ambush us on one of the wooded bends and ride triumphantly with us to the house. Now that hillside was bleak and bare, all beauty gone from it. There would be blackened horror in the ruins of the farm or under the canvas of that truck we had seen creeping down to the village.

"I don't want to go up there alone, without you," I told him. "If you are right about those things they found, you'll be needed here. I'll stay, and do what I can to help."

Prentiss smiled. "I know," he said. "I feel the same way. And—I think I can help."

With an understanding that is rare in men of his profession, Hewitt had not spoken since we passed that first blackened pile. Now he pointed ahead.

"There it is," he said soberly. "Can I stick with you men? I'd like you to sort of tone down what I write if you will. This isn't like what we get in the city."

"By all means," Prentiss told him. "I appreciate your feeling in this matter. Few news-men would be so considerate of our wishes. I promise you, you will not lose because of us."

Together we drove down to the charred and broken ruin that was Granby. Men had been searching the ruins, laying together in the little church-yard the bodies of those they found. Long, stiff rows of canvas stared at us from among the old white stones. Before the church a knot of men had gathered. We went toward them. The street was a shambles, hideous with the memory of what had been. Hewitt dropped behind. I saw him poking with a splintered axe-helve among the embers of the parsonage. Here, outside the old wooden church, the futile battle had been fiercest. He stooped and picked something up; stood staring at it a moment, then came hurrying after us. Just then the men in front of the church looked up and saw us.

I knew most of them—men from near-by villages and more distant farms. I saw that they knew us. They stepped aside. Prentiss halted and stood looking down at what they had hidden. He dropped to his knee and I saw them. I heard Hewitt gasp at my shoulder. Then I too stepped closer and looked down.

There were four now, all more or less charred by the fire. They were physically huge—all of seven feet in height, with massive legs and bodies, and long, dangling arms. Their heads were small and peaked, topped with a ridge of coarse white hair. Their scaly skin was the sickly white of a mud-fish's belly, their thin lips colorless, their little eyes a dull, flat brown. But those narrow faces, those gaunt, distorted bodies, awoke in me the memory

of something—something that in normal shape would be familiar—something that fitted.

Hewitt pushed past me. He held out his hand. In his palm lay a huge, five-inch blade of chipped quartz, cruelly edged, its broken point dark with blood.

There was a startled oath from Putnam, the coroner.

"*Injuns!*" he cried.

Prentiss rose to his feet. He nodded. "Yes," he said, "they are Indians."

CHAPTER III

The White Killers

"LOOK here," objected Putnam. "They can't be Injuns. I've heard tell of 'em in my grandad's time, crossin' over to York State, but they never settled here. There haven't been any hereabouts for close onto fifty or sixty years. Anyway, they're white and their heads aren't shaped right. They're idiots, like I said first—lunatics."

Prentiss stood tugging at his underlip, frowning down at the things on the ground.

"Yes," he admitted, "you were right there. They are microcephalic idiots, without brain-space enough to kill a fly. Look at the way their skulls are pinched in. They are all but animals, and yet they have weapons, and good weapons. It doesn't make sense." He looked up. "Could that spear have come from some collection?" he asked.

Putnam shook his head heavily. "Don't see how it could," he mumbled. "I know every collection in this part of the county—collect myself, far as that goes. I've never seen that thing before, or anything like it. Must be new, found inside the last month. Where'd you get it?"

Hewitt pointed. "Over there," he said. "In the edge of the ruins. It looked as if it had been dragged out."

Putnam scowled. "That's the parsonage," he explained. "That's where most of them were killed, there and around the church. The parson never collected any, either."

Prentiss had been bending over the bodies again. Now he straightened up hastily.

"Which of you took charge of this?" he demanded. "Whose bodies lay there, where Hewitt found the blade?"

One of the other men answered. "It was the parson himself," he said. "He was lying on his face and the fire didn't get at him much. We put him over yonder under the tree, with the ones we could recognize."

Prentiss stepped forward. "I want to have a look at him," he told us. "The rest of you stay here."

Silently we stood and watched him. He uncovered the body and knelt beside it, seeming to unfasten the clothes. We saw him take out his pocket knife. Then suddenly he sprang to his feet and came striding toward us.

"Look at this!" he cried. "It was embedded in his chest, over the heart."

In his hand he held the missing point of the great quartz blade!

He took Putnam by the shoulder. "They *are* Indians," he said earnestly. "They are changed from anything we or our ancestors ever knew, but they are Indians nevertheless. Their skin and hair are bleached and they have degenerated physically and mentally. Look at those apish arms—that receding jaw and the ridges over their eyes. They are old—terribly old! They are almost a Neanderthal type. And look here." He pried open one of the hideous pale-lipped mouths. "Look at that tongue. They couldn't talk. All they could do was howl and mew, like animals. With that deformed brain, I doubt that they

could have used words anyway. You were right—they are microcephalics and they are as harmless as babies. And yet—look at this thing that they have done. I tell you, it's beyond me. It isn't right!"

Hewitt had been scribbling like mad. Now he interrupted with a question.

"If they're Indians," he said, "they had to come from somewhere. How long is it since there were Indians in Vermont, around here."

"WE don't know," Prentiss told him. "For a long time before the white settlers came in here, Vermont was a sort of no-man's-land for all the near-by tribes, a general hunting-ground and a place to fight over. The Micmacs from Maine and Canada were the sort that might have done this, and maybe the New York Iroquois, but these creatures are a far older type—older than anything we have ever seen in America. There was a time, very early, when Indians lived here, before the later races came into this part of the country. If they could have survived and degenerated in some unforseeable way, these things might be their descendents. Something drove them out back there before history began. I wonder if that something can have preserved them somewhere, and let them loose again. But it can't be! It's against all we know!"

The coroner had been growing impatient. Now he broke in curtly. "Look here, Mr. Prentiss," he said acidly. "Maybe it's a pretty little puzzle for you to figure out where these devils are from and why they're like they are, but it looks to me like you can't help us any to tell where they are now and what they'll do. We aren't all cold-blooded scientists like you and Mr. Cady. We're going to see that this thing don't happen twice. If they're Injuns like you say, they're bound to have the knack of woods fighting, and it'll take soldiers and guns to get 'em out. You can set around and figure about 'em if you want to. We're going after 'em!"

He got my dander up. "Hold on there, Putnam!" I snapped. "We have as much feeling as any of you but maybe we have a little more brains. My uncle and his family are dead up there on that hill, and the girl Prentiss was going to marry to-day. I'm a chemist. I can't help you. But Prentiss is a man who *can* help—who might have been able to tell you where to find your killers, if they'd been things the world had ever seen before! If you don't like what he's doing, you can play your own little game of hide and seek the way you want to! Show us where you've put them, and we'll take care of our own people. Granby be damned!"

But Putnam wasn't listening. His mouth was gaping open and he was staring at me with unbelieving eyes.

"Wasn't Miss Dorcas with you?" he demanded. "Didn't you leave her in Rutland?"

I boggled. It was Prentiss who could answer. There was an odd, strained note of eagerness in his low voice.

"She was here, Putnam. We were to meet her. Why do you ask?"

Putnam was pale. "Maybe it ain't anything," he stammered. "Maybe we made a mistake. Only—we were pretty careful up there on the hill, and Miss Dorcas wasn't there at all."

CHAPTER IV

The Missing Girl

I SAW new hope in every face. Dorcas alive! Dorcas safe! It was too good to be true!

"Are you sure, Putnam?" I cried. "Don't fool us. Don't get our hope up for a joke!"

Another man answered for him. "He wouldn't do that, Mr. Cady," he said. "He's telling the truth. I was up there with him. There was just Mr. and Mrs. Cady and the three little fellers. Miss Dorcas wasn't there."

Inches had been added to Prentiss' height. "Cady," he said tensely, "there's a chance! She may have escaped to the woods and be hiding or hurt. They may have overlooked her. We must be sure. If you other men will get the soldiers, we can check over those you have found and make sure. If she isn't here we must cover every inch of the countryside. There must be no delay! Hewitt, you go back in the car to call in the troops and mail your report. Cady and I know the people here. We will wait until you return and make certain that she was not caught in town or on another farm. If not—well, there's a chance! A big one!"

It was dreadful work, searching among those charred and mangled bodies for hers. Prentiss insisted that we do it cooly—methodically—that we avoid the haste that might mean error and false hope. Every body must be identified. But long before we were done we knew that she was not there. One other was missing—a boy of fifteen whose parents had owned a farm far back on the mountain. Then it was that Prentiss had his great idea.

"Putnam," he called. "Have you examined these bodies? Which died first? Which way did the killers come?"

Putnam stared uncomprehendingly. Then suddenly he understood. "By Goshen, Mr. Prentiss," he cried, "you're right! We can tell where they started and where they left off. Only—the way they're burned is going to make it harder to set a time."

"Never mind that," Prentiss told him. "Try it. Do what you can. I'm going to get those farmers to tell what they know. Some of them must have seen flames in the night, and be able to remember the time."

By the time Hewitt was back we had our evidence. The killers had come out of the woods and hill pastures of the furthest farm. They had come down along one side of a long, low ridge, attacked Granby, and returned along the other side, destroying all they came upon. Both Dorcas and the boy had disappeared along their return track. Somewhere in that maze of ravines and limestone spurs the pale killers were lurking!

Prentiss took me aside while the posse was being organized. "I don't want to appear pessimistic," he said earnestly. "I can't give you any reason for my opinion, except that I feel sure that I am right. I don't think Dorcas or the boy escaped. I think the killers took them with them, as prisoners. I still believe that these creatures are harmless in the normal way of things. Something made them blood-mad maniacs. Something made them spare Dorcas and a young boy. If we hunt them down and attack them in a body, we are going to stir up that mania in them and Dorcas will better have been dead in the beginning!

"I will tell Putnam how we feel. He understands mania as well as I do. You and I, and Hewitt if he wants to come, are going up in there alone, while the rest of the posse is making the routine search of the woods and fields. If we find them, the three of us, alone, are less apt to frighten them than a large, armed mob. We will try to get Dorcas and the boy away by stealth. They are Indians, though idiots, and we may be caught. Consequently, one of us, and it had better be Hewitt, will keep out of it and if the creatures are cornered and go blood-mad again, it is up to him to kill us all, cleanly, and then do

what he can to avenge Granby. Do you agree?"

I nodded, voicelessly.

"Then find Hewitt and tell him, while I speak to Putnam. Get rifles for us and plenty of ammunition. I will get what else we need."

I didn't need Hewitt's vehement acceptance to convince me that he was our man. He had come to feel something of what we felt, I think. I know it was not solely his news-gathering instincts that drew him to us, though he passed it off as that. He balked only when I explained his part in the final attack. I could see that he longed to get his lean hands on one of those pallid fiends. But I reminded him of his duty to his paper and of what our lot would certainly be, if he failed us. He had seen those mangled, blackened bodies. He was pale, but he agreed.

ORGANIZATION of the searchers we left to Putnam. If we were wrong—if Dorcas and the boy were hiding somewhere in the woods or creek-gullies of the mountainside, he was the man to find them. As a boy and a man he had hunted over every acre of those woods. While he was splitting the crowd up into small groups, we three crept away and went up the old familiar hill-road, past the black desolation of the old farm, around the shoulder of the mountain to that second farm where the missing boy had lived. Each of us carried a repeating rifle and had filled cartridge belts around our waists. Each of us had a knife. In addition, Prentiss had a small but heavy pack. I asked him what was in it.

"When we need it," he replied, "I will show you. Until then—well, I may be wrong in what I surmise, and there is no use in telling you what I think, until I have some evidence that I am right."

The second farm lay in the middle of a tongue of cleared land that ran up from the valley on the east side of the spur. Here, if anywhere, we should find the trail of the white killers. We poked about among the ruins of the house and barns before we went on. Embedded in one of the huge oaken beams I found another of the great quartz blades.

We went up through the old back-pasture with its dilapidated fences, overrun now with thistles and seedlings from the neighboring woods. The man whose farm this had been was on his last legs. We had seen the carcasses of two horses and but one cow in the ruins of the barn.

The woods were mostly second growth until we got well in. There may have been traces of the killers, but we were too busy ramming through the tangle of saplings and blackberry bushes with the least possible racket, to hunt for tracks. Fortunately we soon came to another fence. Beyond it lay the ancient, open woods. Somewhere in their quiet, shadowed fastness those pale devils were crouching, waiting. And Dorcas was with them.

Hewitt suggested following the creek. It would skirt the bottom of the ridge and be the likeliest way for the killers to go. He was right. They had followed up the creek-bed in single file. The prints of their huge splay-feet were everywhere in the stiff, sandy mud of the creek bottom. There came a cry from Prentiss, who was ahead.

"Look!"

He had dropped to his knees beside a shallow pool. Here the killers had stopped. The creek-border was trampled and mud-stained. The bushes were broken and leaves torn off. And there in the mud, half obliterated by one of the huge prints, was the mark of a woman's shoe. They had her!

Eagerly I hurried up the creek-bed, scanning the banks and shallows for signs of her presence. Halfway to the

next bend I found the prints of two shoes—a woman's and a boy's. The sluggish current had barely rounded their edges. Behind me, Prentiss saw them.

'CAREFUL," he whispered. "Those are fresh. They camped back there. We are getting close."

Silently we filed up the creek. The pale killers seemed to have abandoned all effort to hide their trail, if indeed, they had ever concealed it. We want slowly, and I was a good twenty feet ahead of Prentiss. I rounded a bushy bend and came out into a sort of bowl, a little clearing surrounded by a wall of pine scrub. The grass was matted and trampled. The odor of bruised pine-needles hung heavy in the still air. There had been a struggle here!

My eye caught a gleam of white at the edge of the pool. I ran forward. crumpled on his face in the still water, a great, heavy-shafted spear driven through his back, lay the half clad body of a boy!

I shouted. Prentiss came running, Hewitt at his heels. We dragged the body out of the water and turned it over. Another of those great quartz blades, lashed to a shaft of oak had been thrust through his body from behind, killing him instantly. Cutting the sinew that bound the blade to the shaft, Prentiss removed the blade and drew out the spear. He examined the wood carefully. His forehead was puckered in a frown.

"Oak, isn't it?" I asked him.

"Yes," he replied, rather reluctantly it seemed. "It looks like oak. I guess it is oak. But it is different from any other oak that I have ever seen. Here—look at it for yourself."

I took it. The grain was right, and the color, but it was very heavy—much too heavy. The texture of the wood was queer and there was a stony glint to its polished surface. I pried off a splinter with my knife. It was brittle and snapped with almost a metallic ring. I handed it to Hewitt. He tried his knife on it. It wouldn't cut!

"It's like stone," he said in a puzzled voice.

"Yes," Prentiss agreed. "It is like stone, or petrified wood. It never grew in these woods! It comes from whatever place they come from. It is their wood."

Hewitt seized my shoulder—pointed.

"Look!" he whispered hoarsely.

Drifting down into the clear water of the pool came a plume of greyish mud. Something, close above us, was roiling the water!

CHAPTER V

The Cave in the Mountainside

I REACHED for my rifle. Prentiss checked me.

"Careful!" he cautioned. "Maybe they heard you shout, but I think that mud has come for some distance. It seems thin—washed out. Remember, we dare not arouse them. Something stirred them up and made them kill this boy, and they will still be nervous—keyed up to the brink of madness. We have a delicate task before us. Dorcas is still alive and safe, but the least mistake on our part will mean death for her—horrible death! Remember that."

Hewitt had been staring at the dead boy. Now he spoke.

"They didn't scalp him," he remarked.

"That is a good sign," Prentiss told him. "I think the boy resisted or attacked them. Their mania has had time to die down. They were uncertain when they camped back there. They were ready to make another raid. But their madness left them, and now they are returning to whatever it was that sent them out—to whatever place it is they think of as home."

Above us, on the other side of the lakelet rose the ridge we had been following.

"Prentiss," I said, "it seems to me that we're headed for trouble, following this creek. If they had been here, in this glade, we'd have blundered right into the middle of them. Why not go up there on the ridge, now that we know that they are just above us, along the creek? We can look down on them, and attack from above if we have to. There's good cover up there among the rocks, and I don't think they'll be able to see us."

He looked where I was pointing. The slope was steep, but not at all unmanagable. Pines clung to it, and the ledges were coated with the brown needles. We could go quietly up there.

"You're right, Cady," he agreed. "It gets higher as we go further in, if I remember rightly? We may be able to pass them and head them off. Come along."

"What about the boy?" Hewitt protested. "We can't leave him like this."

"He guided us," Prentiss replied grimly. "Putnam will be coming along before long. There must be a guide for him. Besides, he will have men who can do what we cannot. Come."

The climb looked easier than it was. We lost nearly half an hour in getting to the top. None of us wanted to think of what might be happening in that half hour. None of us wanted to remember what had happened to the boy. Silently, alert for any sign, we stalked through the pines. An hour passed. We had gone nearly two miles without seeing a thing when Prentiss stopped.

"Listen," he murmured.

For a moment I could detect nothing. Then, above the low moan of the wind in the pines, I heard the faint clamor of crows.

"It may be a fox," whispered Prentiss. "It may be—they."

No Indian hunter of old stalked his game as we stalked that distant cawing. We prayed, all of us, that it would continue. We prayed that the crows would not discover us. We hunted bigger game than ever man had stalked in these Vermont hills, since the days when Mohawk warriors donned war-paint for a raid on the settlers of the Connecticut valley. Though we did not know it then, we hunted a prey, greater than ever Man had known. We hunted Life itself.

On our right, now, the limestone cliff dropped sheer to the woods below. Only a squat scrub clung to its crannied face. Along the top ran a thin line of pines, our only shelter. And now, less than a quarter of a mile ahead, we could see the crows.

Flat on our bellies we crept to the edge of the cliff and peered ahead to where a whirling cloud of black spun and streamed above the pines. There, where the ridge joined the mountain, a great grey scar showed against the green of the forest. The face of the mountain had shelved away, strewing the slope with huge slabs of broken limestone and the skeletons of trees. A dot of black was visible against the naked grey rock. Over it swirled the screaming cloud of crows. Beneath it, among the fallen rocks, a thin column of smoke went up. They were there!

Prentiss motioned us back into the shelter of the pines.

"WE must break up," he told us. "I will follow along the top of the ridge and try to creep up close among the rocks. Cady, you go to the left, where the slope is least steep, and try to climb above them. I want you where you can get down in a hurry, if the chance comes. You know your part, Hewitt. It is hard, I know, but it is the

best way for all of us. Creep around to the right and get as high as you can, on the edge of the scar, where you can cover us. I know you can shoot. I saw you take the Three-Star trophy from an Army man. If we are caught and you see the mania coming on them, shoot. Save Dorcas if you cannot get us. I am depending on you."

"I'll try," replied Hewitt huskily. "Wait a little, if you can. I'm not used to this country. It may take me quite a while to get up there."

"I understand," Prentiss nodded. "We will be where we can see you. If none of them is looking up, wave your handkerchief over your head, against the dark pines. That will tell us where you are. Then—wait."

We parted after that. Hewitt vanished down the right-hand cliff, dropping from ledge to ledge, clinging to the scrawny bushes. We saw him vanish into the woods. Prentiss gripped my hand. Then he was gone and I was slipping down the gentler western slope.

At the bottom I found cleared fields running up nearly to the foot of the mountain. At the edge of the valley I could see the black ruin of a burned farm, and dots that were searchers, spreading out over the fields. Keeping close to the edge of the woods, I ran as fast and as quietly as I could toward the base of the ridge.

The climb was easy, as Prentiss had said. I wondered how Hewitt was making out. I went straight up the mountain until I knew I was above the slide, then came over and down toward its edge. When the gap in the trees showed, I went on all fours. Finally, with the tumbled rocks at the foot of the slide showing through the trees below me, I wormed my way to the edge and peered down.

From the naked scar in the mountainside a rather steep, smooth rock-slide dropped to the tumbled chaos of broken rock at its foot. At the head of the slide gaped the low-arching black mouth of a cave. It was a little below the place where I lay, and I could see the shallow shelf before it. There, squatting around a crackling fire, were a score of the white killers!

For a moment I forgot everything in the weirdness of the scene. Huge as they were, those pallid forms were dwarfed by the black maw of the cave. They squatted in a ring around the fire, stark naked, each with a heavy quartz-bladed spear. But it was their expression that caught my attention. Those naked white monsters had never seen fire!

On the rock behind them lay the torch that they must have carried from the blazing ruins of some farm, where an over-turned lantern had set the dry grass afire—a blackened pine two-by-four scantling, nearly five feet long. From farm to farm and house to house of the village they must have carried it, gleefully thrusting it at things and watching it feed and grow. It was a heap of pine skeletons, small trees almost, that they were burning now.

Their hideous faces rapt, their little eyes glinting, they worshipped the thing that they had found, the red god that had eaten the bodies and huts of their enemies. They were so close to the flames that I could smell the stench of scorching flesh, but they showed no awareness of pain. This thing was wondrously new and powerful. They had seen it slay and consume. They had made it their tool—brought it here—fed it with the naked white wood that it loved. Yet I knew, somehow, that they had never known fire.

Now one of them reached out his hand and touched the naked flame. I could *hear* the flesh burn, but he made no move. Sluggishly an expression of discomfort crept over his blank visage. I

could see knowledge of its location come to him. He withdrew his hand. He stared at the horribly burnt fingers. The smell of them came to him—the smell of cooked flesh—and I could see the saliva dribbling from his lips and his little eyes glowing avidly. Then he realized, dully, that the pain was still there. His face wrinkled. His lips drooped open. A cry came out—a wailing, mewing whine that sent chills up and down my spine. For all their form, these things were less than human!

THERE was a flicker of white far above. I looked up. Hewitt was lying against the base of a big pine at the very edge of the scar, his rifle beside him. He was waving his handkerchief. Below, a second quick motion caught my eye. Prentiss crouched among the boulders at the foot of the slide, staring up at the cave mouth. Tensely the three of us lay watching the pallid monsters.

There was no sign of Dorcas nor of the horde that I knew must exist. There were twenty here. The rest had gone, somewhere, and taken Dorcas with them.

I saw that Hewitt was craning his neck down again. Prentiss was standing behind a giant block of limestone, waving his arms wildly, wig-wagging. I couldn't read it, but I saw that the reporter could. He picked up his gun and squirmed back into the shelter of the trees. I caught a glimpse of him, climbing still higher. I watched for him to appear again higher up, but he had vanished. A twig snapped behind me. I whirled, snatching out my knife. Prentiss knelt there.

He drew himself up beside me and peered down at the killers. They were still squatting there on their haunches beside the fire, the one who had been burned sucking at his fingers. The others simply sat and stared into the flames, utterly oblivious of what had happened.

I could barely hear his voice. "Dorcas is not here," he murmured. "She has been taken inside. Hewitt is coming round and when he is here we will try to pick them off with the rifles, then rush them from above and get inside. In the dark, I hope, we can keep them from following."

In answer I unslung my rifle and loosened the cartridge belts. Then we lay still, waiting for Hewitt.

It was tough going. More than half an hour passed before he had worked his way over the top of the slide to where we were. Prentiss explained his plan. Beneath our position a steep dirt slide dropped to the ledge before the cave. We would pick them off one by one until they stampeded, then rush them and try to make the cave before they did. Once inside, we could take care of them without too much trouble.

"I'll stay here," Prentiss told us. "It is steeper here, and nearer to the cave. You two spread out down the slope a little so that we converge on them when we charge. When I fire, let go. Then every man for himself. There is no more rear-guard for you, Hewitt. We are all in the same boat this time. But if we find Dorcas and if they get after us, hold out as long as you can, then shoot her and whoever else is still alive. Do you understand?"

"Sure," said Hewitt drily. "Thanks."

He slipped back into the woods and I followed. Twenty feet farther down he crept up to the edge again. As far below him, at the lower limit of the dirt slide, I took my place. I drew a bead on one of those ugly, peaked skulls. I wondered whether a single bullet in the brain would kill him. Those in the village had been practically blown apart by shotguns at close range.

Prentiss was waiting terribly long. He was higher on the ridge than we were—could see more. I wondered what

was the matter. Was it an advance-guard rather than a rear-guard? Was Dorcas down there by the creek, where we had been before?

Suddenly his voice rose in a frantic shout.

"Stop! Stop!"

The killers sprang to their feet, their great spears poised. Below rose a babble of voices. I leaned far out and looked. Soldiers were there—the men I had seen in the fields. They were scrambling up the slope, guns in hand. An arm flashed back and forward again, then with a thunderous roar the opposite cliff collapsed and came crashing down on the ledge sweeping three of the monsters from their feet. They were using hand grenades!

As if drawn by some mighty magnet the remaining killers were sucked back into the cave-mouth. I saw Prentiss plunging down the slide and Hewitt scrambling after him. I leaped—felt the dirt and gravel clutch at my ankles and crumble away under my feet—then I was shooting wildly down the face of the cliff atop a miniature landslide, straight for the ledge and the cave.

I saw Prentiss stagger, regain his footing, and vanish into the darkness. I saw Hewitt scrambling to his feet. The ledge rushed up to meet me. I tottered, freed my feet, and raced across it. I flung myself through the opening into sudden darkness. Then a second grenade struck just above the low arch, there was a mighty crash of echoing thunder, and everything went utterly black!

The cave was sealed!

CHAPTER VI

The Battle in the Cave

ECHOES went crashing from wall to wall, dying out in a thunderous mutter. Out of their clamor I heard Prentiss calling. "Cady! Hewitt!"

I answered, my voice pitched low. Somewhere in this blackness the killers were crouching. Beyond me I heard Hewitt's voice, then Prentiss spoke again.

"Get cover and shoot when you see them. I'll make a light."

Flat on my stomach on the floor I wriggled back toward the sealed cave-mouth. Huge, jagged slabs of limestone had fallen far into the cave. I crept behind one and eased out my rifle. For a long moment I waited, then out of the blackness on my right flashed a shaft of white light, its path marked by drifting rock-dust. Straight across the great cavern it darted, glinting on a wilderness of fretted crystal columns. It swept across their glittering curtain. Midway of the cave it found darkness—a gap in the crystal wall. In it loomed the naked white killers, spears held ready, little eyes gleaming.

"Now!" shouted Prentiss.

In answer came a quartz-bladed shaft of oak, hurtling up the beam of light with all the fury of a monster thrust behind it. Its aim was deadly. With a crash it swept the light from the rock on which Prentiss had laid it. The cave went black again. But I had marked that gap in the crystal curtain and so had my companions.

The air shook with the rattle of shots and the scream of ricocheting bullets. All about us crashed the great quartz spears, then with a rush of naked feet and a fiendish howl the madmen were on us.

My rifle was empty. There was no time to refill its magazine. Leaping to the top of the great rock I clubbed it and swung it savagely into the dark. There was a dull smash and a gabbling screech. Something came toppling at me. Huge hands caught at my ankles and brought me crashing from the rock upon the twitching body of the thing that

had me. My rifle went spinning into the dark. Then I was up again with a spear poised to thrust. A fierce white light lit the cave.

It was a magnesium flare that Prentiss had ignited. The white monsters stood gaping, blinded. Five of them were heaped in the gap in the curtain. Three more sprawled on the floor. One lay dead at my feet and I saw Hewitt's gun come smashing down to split the skull of his second like a ripe mellon, while Prentiss let go three shots that brought three of the dazzled creatures crumpling to the ground. Another of the things towered before me. I saw the pupils of his muddy eyes narrowing to slits, saw a sort of intelligence creep over his hideous face. He saw me. He raised his spear. Mine caught him in the throat and he fell. Then I had snatched up my gun and was reloading with fumbling fingers, while the remaining two faltered, turned tail, and ran for the shelter of the gap in the stalagmite wall.

High amid a heap of tumbled rock on my right, Prentiss had been struggling with the magazine of his rifle. Now he fumbled for a shell, jammed it into place, and fired. One of the killers went skittering across the floor, hurled by his own momentum and the effect of the slug, to come to a crumpled halt against a huge stalagmite. For an instant the other stood silhouetted against the black opening in the wall, then he plunged out and down. I heard the splash of water—a flurry of thrashing—silence. The flare went out.

"Well," came Hewitt's comment out of the blackness, "I guess that'll be all for now. Samson and his jawbone had nothing on us."

"We've been fools!" cried Prentiss bitterly. "We've killed them all, and now we have nothing to guide us. We should have followed those two—trailed them to wherever they have Dorcas. Now God knows when we will get to her! We have roused them and it may be too late!"

"Hunt trouble later," Hewitt retorted. "There's just one way out of here, and that's through that gap. Give us some light and come on."

We came together at the gap. Prentiss had unslung his pack. He handed me an electric torch.

"You are the best shot here," he told Hewitt. "Keep your hands free. We two will carry the light. I have spare batteries and bulbs here in the pack. The other torch is a wreck. Those spears are heavy."

The gap was wide. Abreast, Hewitt with ready gun in the middle, we stepped through. The light of the torches fell on a deep pool with a slanting beach running up from the other side into a narrow tunnel. To right and left opened a giant cavern, bristling with crystal columns, with the gaping mouths of passages opening here and there. Some one of those passages led to Dorcas.

My light fell on the opposite brink of the pool. It glistened with water. There was a soft spot—clay seepage from above—and in it, the edges still crumbling, was the print of a huge splayed foot.

"This way!" I shouted. "He got away! Quick, before we lose him!"

LIKE a pack of hounds that has sighted a rabbit we went tearing around the edge of the pool and into the tunnel. It bent—seemed to pinch out. I rushed along it, slipped, and plunged through a hole in the floor. I jolted over a mass of fallen rock, rose to my feet, slipped again, and with torch and rifle waving wildly went coasting down a long, smooth flow-stone slope into the middle of a huge room.

Barely in time I staggered to my feet. Hewitt came down after me with

a rush that took my breath away. I picked out the hole with the beam from my torch. Prentiss was peering through. Lowering himself cautiously, he began to work his way down the smooth rock. Suddenly his heels shot up and he came headlong at us. I must have looked like that!

We took stock of our surroundings. We were in a huge, domed cavern that lay under the crown of the mountain. Gigantic glistening stalagmites rose into a blackness that our torches could not pierce. The floor between them was strewn with shattered rock. But of the pallid killer there was no sign.

"They didn't come up that slide," Prentiss stated positively. "They could never have made it without cutting notches. There must be some other way."

"You have the lights," said Hewitt sourly. "Look for it." He had lost the skin of both elbows.

Gouging shallow toe-holds into the soft flow-stone I worked my way to the top while Prentiss kept the beam of his torch on me. There was a shallow, slanting ledge just below the hole. Beyond it narrowed to a crack, but under the shoulder of the wall it ran away into the dark, around the edge of the great room. I crouched down and worked along it to the right. It disappeared. I tried the other side. For a hundred yards I edged along. Then a draft of warm air hit me in the back of the neck. I screwed around and looked up. There was a crevice in the wall just big enough to take the body of a large man. And caught on a crystal icicle at its mouth fluttered a tatter of cloth!

"Come on!" I shouted. "They brought her this way!"

Luck is not recognized by science, but we had more than our share then. Had we but known it, the creature we were trailing had gone straight across the great cavern while those that had Dorcas followed a shorter route. It led along a winding, water-worn crevice that soon leveled out and then dropped sharply downward. There were no side-passages to confuse us. In single file, Hewitt in the middle with his gun leveled over my shoulder, we went down at a good pace with the wind always in our faces.

For almost an hour we went down, without a sign of the creatures we were following. Then we came to a sudden bend and the roar of water thundered in our ears. A hundred yards and we came out on a narrow, spray-washed shelf. Crashing down over a slope of fallen rock was a torrent of water. I flashed my light across. The opposite wall was sheer, but above the falls opened the mouth of another cave. With a muffled cry I drew back and pushed the others ahead of me into the tunnel.

Coming down the rocky slope from the upper cave was the monster we had been following!

Had he sensed my light? Would he turn into our passage? Was he returning, or had he come by some other way? Tensely, scarcely breathing, we listened for the pad of his naked feet on the ledge outside. It came. He paused suspiciously at the mouth of the tunnel. We heard him sniffing—trying for our scent. The wind was in our faces, away from the river, and he passed on. Thrusting my torch into my coat-pocket, so that only the dimmest glow of light showed the rock at my feet, I crept after him.

THAT was a weird chase! Only the dim yellow glow of light on the rock beneath our feet showed us where we were treading. We heard the dull roar of water beside us and felt the wet rock underfoot. We heard the slap, slap of the killer's feet ahead of us. We heard our own stifled panting. But after a while there was only that soft pad,

pad, pad of naked feet in the darkness and the hiss of air in our nostrils. Where we were—what wonder or horror lay in the blackness around us—God alone knew.

For hours we went down. The creature seemed unaware of our presence. It was as though he was walking in his sleep, following a path impressed on him by some external force. He was led, and he led us.

We knew when we were in shoulder-wide passages that rose thousands of feet above our heads. We knew when we crossed mighty echoing caverns that no living thing had ever seen. We knew when the river, or some other river, reappeared and paralleled our course with its deep, smooth rushing. Once it leaped into a void in which even the thunder of its falling was lost. We crossed that emptiness on a knife-thin span of tilted stone, creeping, clinging desperately to the wet rock, while the white monster stalked unconcernedly ahead. We might have lost him then, but the way was straight and clear beyond.

The creature seemed tireless. Hour after hour we followed, until, hours after we had found him beside the buried river, there came a gleam of light ahead. His swinging stride grew brisker—almost a run. A subtle change came over him. He was aware again.

We stopped, crouching in the shadows behind a great stalagmite. We saw his misshapen form black against the distant glow—saw him stop, stare back into the darkness, sniff the hot damp air. But the wind out of the buried world still blew in our faces and the column hid us. He turned and vanished, going down into the glow. After a little we followed.

Cautiously we stole to the bend where we had seen him last. A milky light filled the broadening passage ahead. It poured in from a mighty flattened arch through whose crystal draperies the hot wind moaned with dire boding in its tone. Beyond lay—what? Huddled together, shoulders touching, we went toward the opening. We stood in it. We looked down on the buried world of the pale fiends.

CHAPTER VII

The Buried World

WE stood on a broad, flat shelf, strewn with huge blocks of black stone. Above us the cliff rose sheer to the hovering clouds. It glowed with a steady light, wanly white with a taint of green. The clouds were a tumultuous sea of lambent white. And beneath us a wan, white landscape stretched away into the mists, lit with a pulsing fire.

The trees beneath us were like oaks, huge and spreading, with giant leaves that we could see clearly from where we stood, a hundred feet above their tops. Their massive trunks were boled and scarred and their limbs were grotesquely twisted. They were pallid ghost-trees—green-white of leaf and ashen-barked, with long, lax streamers of moss draping their distorted boughs. And in the far distance, beyond a river whose swirling, glowing mists shrouded the distant landscape, we glimpsed the level reach of flat white plains.

A trail wound down among the black rocks. It was worn by the recent passing of many feet. We moved toward it. I stopped for one last look out over those ghostly forests, and in that instant the distant mists drew back and I saw the land beyond. Far in the distance a great blaze of cold green light went up from a maze of tumbled, wooded hills. And on the plain was a moving blotch—the returning army of the white killers. The mists curled down and hid them. I turned to follow the others.

Prentiss went first. The trail was narrow and tortuous, winding like a back-broken snake among the towering blocks of stone. At no moment could we tell what lay ahead, but as we went lower we began to see the tops of the pallid oaks overtopping the rocks. Then with startling suddenness we were at the edge of the forest.

Under the trees the white light of the glowing clouds gave way to almost total darkness. Only a vague, ghostly gleam from the trees themselves lit the dark aisles of the forest. The trees grew close together and their huge, ribbed roots broke the ground everywhere, half covered by the thick white moss that carpeted the forest floor. Into this dim-lit world we went silently on the track of the naked fiend.

After a little our eyes grew accustomed to the half-gloom. The trail, or what was left of it, wound among the giant oaks, avoiding the jagged black ridges that thrust up everywhere and over which the great, serpentine roots clambered. Even the close, damp air seemed tainted with that green-white glow—the cold gleam of slow decay. Prentiss seemed to find it understandable.

"Radioactivitiy," he explained. "Radium, maybe. No wonder the creatures that live here are mutated out of all normal, evolutionary trend. I wonder what it will do to us."

Neither of us ventured to answer. The thought of those naked man-things lay heavy upon us.

Over the thick white moss we could go very softly. Now we began to find that there was life in these buried forests. An albino deer, very like our own New England deer, bounded away into the half-light. In a little glade, drinking from a tiny, glowing pool, we came on a herd of ten or fifteen horses—pony-size, with long mane and tail and thick white fur. Their ears were long and their hoofs small and greyish. As they scented us, they wheeled like a cavalry troop and pattered off among the oaks. Prentiss stared after them with glistening eyes.

"PLEISTOCENE!" he whispered. "Pleistocene forest-horses — and associated with Man!" He turned to Hewitt. "You'll have some mighty queer things to report to your *"World,"* he said. "Keep your eyes open. We will be seeing living geology."

We found traces of the human things in the mud of the pool. Among them, nearly stamped out by their ugly, flabby prints, was the mark of that little shoe! Dorcas was still alive! Our hearts were lighter as we hurried along the barely visible track. We were not too late.

Hewitt expressed our feeling with the apt triteness of the newspaper man.

"While there's life there's hope," he remarked buoyantly.

Silently Prentiss nodded. Life meant a great deal in this buried world.

We were worn out, physically and mentally. For more than two days we had not slept, and during that time our bodies had been subjected to a continuous strain to which they were utterly unaccustomed. We had to rest. Now, with the knowledge that Dorcas was still safe, was the time to do it.

The little pool where we had seen the horses was drained by a sizeable brook of the same dimly luminous water. It must flow into the river, and we decided to follow it. Trailing a killer along a path that he knew and we didn't was a little too much like asking for a quick funeral.

We had no food with us. Prentiss had reasoned that wherever the creatures we followed lived, there must be food and water. What they could do we would do, and we had had to travel as light and as fast as possible. Consequently, though the more we saw of this weird inner

world the less we liked the idea of eating anything that came out of it, we were famished and apt to remain so for some time to come. We had to eat.

The problem solved itself. About five miles below the pool and over sixteen miles from the place we had entered the buried world, we found that the stream grew shallqw and that there were tracks of hoofed animals in the dark mud of its banks. It looked like an ideal place to stop. Unslinging our guns we set about building a fire.

The oak wouldn't burn. There were plenty of dead limbs about, heavy and flinty like the shafts of the spears, but only the deadest and driest of it would even flicker fitfully. It was crammed with silica, exactly as though it had been petrified. Then we made a discovery. If the wood wouldn't burn, the thick white moss was like tinder. Inside of ten minutes we had a roaring fire built on a ledge beside the stream and were wondering what to eat and how to get it.

Suddenly Hewitt pointed. Across the stream a tiny deer stood staring from the forest, the firelight gleaming on his eyes. Further down, the low-hanging branches of one of the great white oaks parted and two of the forest-horses stepped out, to stand and gaze into the leaping flames. I turned. We were ringed about by glowing eyes and shadowy shapes half seen in the gloom of the forest. I remembered those man-things squatting around their fire, rapt by the flames. This buried world had never yet known fire!

Hewitt was raising his gun. Not twenty yards away was a herd of the little deer.

"We eat!" he murmured.

Prentiss pushed down the muzzle of the gun.

"Not that way," he said softly. "They know nothing of guns now, but they will be quick to learn. Save your shells for—other things. Cady, let me have that spear of yours."

I handed it to him. He hefted it, poised it to his liking, and stepped slowly toward the wondering beasts. They stood frozen with awe, watching him come. He lifted his spear to strike, when there came a crashing among the shadows and a huge white beast as large as a horse came trotting into the ring of firelight. Its skin was smooth and hairless save for a sort of thin mane running over the crest of its head. Its snout was piggish and drawn out into a rubbery proboscis.

"TAPIR," whispered Hewitt.

Prentiss was watching it. It was nearer than the deer and seemed utterly oblivious of the fact that he was there. Taking a firmer grip on his spear he moved toward it. Suddenly I was aware that the other animals were gone—vanished as silently as they had come. Only the tapir stood there, fascinated by the flames. It moved closer, under the dense foliage of a big oak. A movement in the branches above it caught my eye.

"Look out!" I cried.

The tapir whirled in panic. Prentiss leaped forward with upraised spear. Then out of the tree dropped the image of death, great eight-inch tusks gleaming wickedly, steely talons slashing, full on the tapir's back. It clung there, a mass of sinews as big as a lion, its stout legs gripping the tapir's rounded flanks. Those giant tusks sank deep in the tapir's neck. The thick neck was wrenched, and with a rush of dark blood the tapir plunged and fell at Prentiss' feet. With a hideous ripping of flesh the great cat tore loose its claws and in that instant Prentiss drove his spear forward and down and dove clear over the beast into the shelter of the oak-trunk.

We heard that spear tear into the tiger's body and through it into the carcass of the tapir. There was a screaming snarl of pain as the beast tore itself loose and came leaping toward the fire. I grabbed for my rifle but Hewitt was quicker. Three shots smashed into the creature's sloping skull between its eyes. It checked midway of its last leap, its taloned forepaws slashing at thin air, then with a lunge fell forward. My voice came to me. I screamed—a grating, bubbling yell of pure terror. I felt a numbing blow on my thigh, and my ankle was twisted savagely. The great tiger lay with its eight-inch sabers driven into the ground on each side of my knee, its body weighting down my leg. I saw its muscles contracting for another plunge. Then it shivered and was still.

They pried its tusks out of the hard soil and dragged the brute off of me. I could walk, but my ankle felt as though it had been in a screw-press. That, however, didn't seem to worry Prentiss. He was completely wrapped up in the tiger—smilodon, he called it. It looked more like a dog or a bear to me, but he said it was a cat, a sabre-toothed tiger, and fully as Pleistocene as the horses. Anyway, we ate the tapir.

The next day we forded the river at a shallow place and started out over the plains toward the distant hills. They were covered with a short, crisp grass, almost as flinty as the oak had been. I was glad that I had suggested cooking the more edible parts of the tapir and packing them along with us. There was nothing whatever to burn on the plains.

It took two full days to cross, *plus* what remained of the second day after our arrival. We calculated, I think, that we covered about forty miles. My ankle slowed us down, and by now we had lost all trace of the man-things we had been following.

The animals of the plains, so far as we could tell, were pretty well limited to a sort of large white woodchuck, some squirrel-like rodents, and a few scattered herds of bison with horns like a Texas steer and a huge shaggy hump on their shoulders. Even though we had a sabre-tooth to our credit, we steered clear of them. There were too many of them, and they were much too big.

AT the end of the second day we struck a creek and a trail. It carried almost as much water as the river, but it was narrower and a good deal deeper. By now the wooded hills were rising high above us, shutting out that weird green glare that seemed to stream from behind them. Only its reflection on the low-hanging clouds showed us where it lay.

My ankle was feeling better now and we were making pretty good time. We reached the edge of the forest at what would have been nightfall, by our watches. There was no night in this buried world. The pale green-white glow of earth and clouds never changed.

The stream lay at the bottom of a deep ravine cut into the black rock. There was a rather broad beach along the base of the cliff, and this we decided to follow. For about five miles we went along between jet-black palisades, seeing no sign of life except for the footprints of what must have been a pretty formidable bear. Then the walls of the gorge lowered and fell back and we found ourselves at the end of a high plateau.

Before us lay an oval lake from which the stream sprang. Behind us were densely wooded hills, the white forests coming down on both sides to the edge of the lake. Beyond the lake the hills rose steeply in a series of ragged black crests ribbed with the white of quartz or marble, but away to the left they fell back, showing what seemed a limitless

steppe, stretching endlessly into the misty distance.

At the edge of the lake, near the other end, was a straggling village of squat, round-topped huts. Men were moving among them and on the other side of the village I saw a high-walled enclosure.

"She is there," said Prentiss grimly, "if she is still living. Remember Hewitt—think of her first."

He walked toward the edge of the forest. He stopped. Under the trees something moved. An elephant came out into the open, squat and flat-skulled with long, curved tusks and small ears. On its shoulders rode one of the pale killers and behind him came others—scores of them—mounted on their strange steeds. In total silence they plodded toward us, spreading out in a long line.

"They have us," warned Prentiss. "Keep your guns if you can, but don't resist."

CHAPTER VIII

The Sub-Men

WORDLESSLY we stood there watching that grim circle close around us. The elephants, we could see now, were covered with coarse white hair. They were very little taller than the creatures that rode them. Each man carried one of the great spears, dangling at arm's length against the flank of his steed.

"What are they?" asked Hewitt in a hushed voice. "Mammoths?"

"No," Prentiss told him, "they are mastodons. We have always suspected that they were contemporary with early Man in America. They are changed though, much as these Indians have. It may be due to the radioactivity of this place.

"What are we going to do?" I asked. "The forest is close. I think we could make it."

"We must not resist," repeated Prentiss. "Whatever they intend, it is not death. They may take us to Dorcas. If not—well, then is the time to show fight."

The creatures had closed around us in a tight circle. Blank-faced, they sat staring at us with their hideous little eyes. The mastodons seemed to be watching too, evilly waiting for—something. On the side toward the forest a gap appeared in the line. Behind us they shuffled closer, their trunks swinging threateningly. I started off into the shadow of the trees, the others after me.

They herded us, as we would sheep. Two of the sub-men rode on each side, very close, and the rest spread out behind. There was no word, no sound from the man-things or from their great steeds. They did not offer to touch us. But when one of us spoke they drew threateningly closer and those long, hairy trunks would begin to swing.

Prentiss edged up beside me.

"Cady," he murmured, "do you feel anything? Anything strange, unnatural?"

I knew what he meant. I had felt it for a long time, from the moment when I first saw that fan of green light gleaming through the river mists. It emanated from that light, I thought, though now the high hills hid it. It was in my mind, plucking at it, in a sense—leading it. It was a sort of gentle compulsion that smoothed away the protest of my will. I *wanted* to go where the sub-men were herding me. I wanted to go where they went. *I wanted to be like them!*

"We must fight it," he whispered. "I do not know what it is, but it is the thing that put the blood-madness into those half-human things and sent them out to destroy Granby. It is the thing that directs those mastodons. Cady, I have a feeling that it directs this entire

buried world. It *is* guiding this world."

"Careful, Prentiss," I replied. "Don't talk like that. Maybe you're right—I feel like that too—but fight against it. Don't admit it. Don't think of it. We aren't of this world. It can't direct us!"

"Look at Hewitt," he returned softly.

He walked ahead of us, his rifle slung over his back. He was striding straight ahead between the first pair of mastodons, his arms swinging to the rhythm of his stride. That rhythm was in me, in my brain, part of me. It was the thud, thud, thud of the swinging stride of the mastodons. It was the beat of their swinging trunks. It was the sway of the sub-men's bodies as they rode and the swing of their dangling arms. It was a dull, slow, soothing swing of the trees, of the grasses, of all the world and all of time. It swung in my brain and it beat in my throbbing pulse. My muscles surged to its rhythm, My will rose and fell with it and with each surge it grew fainter, weaker, and the urge of the green light swelled higher and stronger within me. I began to hum through closed lips, drowsily, marking the beat. "Mmmm—aammm—aa—mmm." My arms were swinging—.

"SNAP out of it!" cried Prentiss. "Fight!"

A film seemed to glide back from over my mind. I saw Hewitt rousing, saw his swaying stop. He turned to us.

"God!" he cried huskily. "It nearly had me! What is it?"

Prentiss was very pale, his lips thin and grim. "I don't know what it it," he replied, "but before we get out of here I'm going to find out. Right now it is poison to us—rank poison! Cady—where is that coffee-can into which I put the spare batteries. I gave it to you."

"I have it here," I answered. "We've used half of them."

"I know. Give them to me," he demanded. "Now let me have some small coins—all you have, both of you."

He put the coins inside the can and wedged on the cover. Then he began to rattle it, jerkily, angrily. The din hammered our ears with a discord that destroyed the insidious rhythm in our brains. Even that insistent plucking died almost to nothing.

"That does it," he said with a grim smile. "Now whistle—sing—dance—anything to break up that damnable swinging! Sing jazz. Get some other rhythm into you! Come on!"

Prancing like a colt he led the way, rattling his can furiously. Hopping from one foot to the other I followed. Behind me came the sound of "Yankee Doodle," as Hewitt danced after us. Down under the trees we went and out on the lake-shore, the mastodons swinging after us. We turned up the narrow beach toward the village, howling like a bunch of college drunks on Alumni Night. Pretty soon we all dropped into the Maine "Stein Song" and made the forest ring with it. Rabbits and short-tailed rat-like creatures scuttled from underfoot. The mastodons surged up to us and past, then fell into their old formation. And then I felt that soft insistence creeping over me and with a cry I stopped short. The rhythm of the swaying beasts had changed—*was the same as ours!*

"Prentiss," I cried, "it's changed! The damned thing's fighting back!"

He came to a halt. "Don't sing," he commanded. "It can change—get you through your own tune. Listen to this can for all you're worth and if you hear me get into any definite beat, take it away from me."

So we went on. Prentiss pranced madly in the lead, jangling his can. I hammered two rocks together, trying to follow his hap-hazard clatter, concentrating on it. Hewitt was clanking his knife hilt on the barrel of his rifle. Suddenly

Prentiss tossed the can to me and I carried on. From hand to hand it went, smashing and clattering in utter discord and I saw with grim satisfaction that the mastodons were stumbling and lurching, trying to find a rhythm in our clamor *and failing!* I shouted aloud with glee, and like a trio of idiots we howled and hooted along the beach with the mastodons clattering after us.

The village of the sub-men was a filthy huddle of skin huts. In most of them the skins had not even been cured, but flung raw over a crude frame of bent poles. There were about fifty all told, and each hut held from two to five of the creatures with their mates and young. The women were even more hideous than the men, and were short and squat—almost frog-like. The children, if you could call them that, were simply animals, snarling and clawing about in the filth of the streets and floors.

We peered into every hut and into the rude corral where they kept the mastodons. Dorcas was nowhere to be seen, nor was there any indication that she had been kept there. Like clay images the sub-men stood watching us search their village. There was not the faintest human glint in their eyes. I could have sworn that they were not even animals. They were machines—robots of sodden, misshapen flesh, controlled by that invisible force that drove continually at our brains, trying to beat down our slim defense.

WE stood in the center of that ring of hovels, with the naked man-things staring at us from a safe distance and the triple line of mastodons with their riders beyond that. Dorcas was not here—had never been here. What was more, these sub-human creatures did not seem to know what to do with us now that they had us. I could feel that the force from beyond the hills had been released.

"Suppose they took her to the thing that controls them," I suggested. "These creatures would never have taken her prisoner of their own accord. They haven't mind enough. You were right about that, Prentiss. But something sent for her and the boy—the thing that has been trying to get at us—and I'll bet they took her straight to it." I pointed up past the rude domes of the huts to where a narrow valley ran up into the hills. "That's where she is. I'm going there. If they try to stop me I'm going to use my gun."

I strode straight at that ring of glowering creatures. A gap opened. I went through and I saw out of the tail of my eye that the others were following. The mastodons bunched and came trailing after us, following now instead of leading. It was right! I knew it in my bones! The thing beyond the hills had relaxed. It had brought us to the village of the sub-men and it expected them to keep us there. It had turned the focus of its mind to other things. But in the fringe of its consciousness was the awareness of us and our whereabouts. It roused. It saw us coming—coming where it did not want us. And it sent out a command to stop us.

The mastodons had been shambling along far behind us, listlessly following some central urge that drew them toward the mind that directed them. We heard the sudden thunder of their feet on the hard ground.

"Trees!" cried Prentiss. "Pick a strong one and don't waste a shot."

Luckily the branches were many and hung low. Before they could reach us we were high above them, unslinging our rifles. We did not wait for attack. There was no need for that. As fast as we could aim we fired at the mad-eyed man-things beneath, toppling them like nine-pins under the trampling feet of the mas-

todons. A shower of spears snarled through the leaves around us and then the great beasts charged.

They hit the oak in a wave of sheer weight. Massive as it was, its branches whipped crazily under the impact. I emptied my rifle into the flat skull beneath without any result. That giant head was a mass of solid bone. Again they came, trunks reaching up to tear huge branches from the tree and hurl them at us. Then Hewitt, who was highest, gave a cry of alarm.

"Look!" he shouted. "What's that?"

I peered through the whipping branches. Lumbering out of the forest on the other side of the little valley came three rocking mountains of long white hair, bigger even than the mastodons. Their tiny heads were shrunken under massive shoulders and they rolled along upon recurved claws that were like giant, curving sickles of black steel. As I looked, the foremost creature reared itself up on its huge hind legs, propped by a thick, stout tail. It towered halfway of the great oak behind it, all of twenty feet into the air.

"Megalonyx!" shouted Prentiss. "Ground-sloths! We've got to get out of here!"

Somehow we did it. I remember being flung bodily into the next tree as the mastodons charged again. I remember scrambling from that tree into another just as the giant ground-sloths reached the first, and seeing them stretch out their mighty hairy arms and rip the tree in half at its lower fork. Hewitt came sprawling through the air at me and Prentiss was yelling to follow, before they could sight us. My gun caught in a fork and with the strength born of utter panic I tore it loose. Then I saw a broken cliff of the black rock rising out of the trees ahead. Prentiss was scrambling up it. Hewitt had passed me and was at its base. Then at its summit appeared a shape that sent horror chilling through my veins. Looming on short hind legs, its claws and blunt, fanged head poised to lunge at the climbing man, was a gigantic bear!

I GUESS I fired. I heard the noise, and saw the bear collapse. Then the tree behind me crashed into ruin and I leapt frantically into the next one and scrambled to the foot of the cliff. Somehow I clambered up. Prentiss sat panting on what looked like a whitish haystack. Hewitt lay on the ground beside him.

"Short-faced bear," explained Prentiss hoarsely. "They get big. Thanks."

He sobered instantly. "We must waste no time," he went on. "This directing mind controls man and beast alike. God knows how, but it does. It brought those ground-sloths and that bear. It sees and smells with their eyes and noses. It is they, as well as itself. It is all the unnatural life of this devilish place, and we have to get it before it gets us! They have lost us now, but we must hurry and keep close watch. Kill anything that shows signs of recognizing us or following us."

We kept to the high black ridges where we could see what was coming at us. We kept the magazines of our rifles full and the guns themselves ready for instant use. And when we could run we did.

Twice we saw bears and brought them down before they could reach us. A mastodon that had outdistanced the others very nearly cut us off, but we put a wall of rock between him and us and then cut across the ridge that formed the summit of the pass, to come out at last on the cliff above the hidden city of the sub-men.

It was a city—a regular cluster of black stone huts, set beside a small stream in the bottom of a great natural bowl. Fields surrounded it, and dots

that were men, afoot and astride their giant steeds, were moving slowly toward us. Beyond stretched that seemingly endless steppe that we had seen before from a distance, palely lit and flecked with moving herds. But it was not the city or what it threatened that held our eye.

Save on the left, where the steppe opened, the wall of the cavern world dropped sheer from the luminous clouds to the sparsely wooded hills above the city. It was a wall of jet pillars, hexagonal columns of basalt or trap rock, thrusting thousands of feet from the pallid forest to the glowing clouds. And in its center blazed a rectangle of vivid green.

It was cold, that light—deathly cold. It seemed somehow hard, merciless. It rose in a great, unwavering shaft of pulsing luminescence clear to the lowering clouds, lighting them and the entire inner bowl with its icy brilliance. It was like a mighty, emerald window, frozen in black ice, through which blazed the pitiless fire of an elder star. And out of it poured repulsion, hate, fear, in a chilling tide that lapped about our waists and touched our hearts and brains with icy fingers.

It was the Mind of this buried world, and it feared our coming!

CHAPTER IX

Victory by Flame

BETWEEN set teeth Prentiss spoke. His face was a frozen mask, lit by the weird, green fire of the Thing.

"It has her, Cady. All this world is part of it. And I am afraid—"

We stood staring silently down at those spreading dots; all the living things of the hidden bowl rushing to intercept us.

"It isn't far," muttered Hewitt. "Three miles—maybe less. Can we ever do it?"

"We can try," I told him grimly. "We will try. We'll rush them and die trying."

Prentiss shook his head slowly. "You forget Dorcas," he said. "We must not all die. Someone has to get to her."

It seemed that a red fire was in my brain, neutralizing the cold green of the Thing in a flame of burning white. Out of that flame I spoke.

"Damn you, Prentiss, we *will* try! I'm not afraid of that green light. It can't hurt us. And we have the stuff that will sweep this place with a fear greater than that Thing can make! We have fire!"

His face brightened. "What do you mean?"

"I mean that white moss," I cried. "We'll fire it and burn hell out of those damned things! We'll let it sweep the place clean for us, and we'll follow it to Dorcas if we have to smash that green Thing and its whole damned world! Are you coming, or do I have to do it alone?"

He took out his metal match box. He shook out the matches on the rock and divided them into three piles. He handed them to us in silence.

"We will separate when we reach the fields," he said quietly. "We must spread over a wide front. Beyond the stream we will have to fight. We must try the city first. That is where they would bring her, I think."

The strip of forest just below us was deserted. We had feared that we would have to fight our way through, and that we would be attacked from behind. The woods were empty but for the tiny creatures of the underwood—the rabbits and wood-rats that crouched among the tree-roots watching us, seeing for the green Thing beyond the bowl. On the fields, in the open, the sub-men would be waiting.

I reached the edge. We were spread over a mile-wide front. Sweeping up

toward us from the stream and from the city beyond came the sub-men, afoot and mounted, and before them, bellies close to the ground, savage-fanged jaws slavering greenly, raced a pack of hounds out of Hell itself!

Hastily I grubbed up a heap of the dry white moss. I ripped my shirt into long strips and buried them in the fluffy stuff. Then I had the matches out and was striking them desperately while the hell-hounds sped up the long slope toward me, voicing their triumph in savage glee. They were but a hundred yards away when the moss caught. Twisting a fallen branch into the blazing heap I ran at full speed toward Hewitt's stand, strewing the flaming moss from my improvised torch. With a sullen roar a wall of crimson fire went up and rushed down the hill at race-horse speed. I heard a screaming howl of pain as it met the hell-pack. I saw them scrambling blindly on the blackened ground. Then we were following the flame-wall, converging on the river and the city beyond.

THAT was a wild race! Powdery soot swirled in an inky cloud about us as we ran. A hundred feet before us rose the wall of fire, its fierce heat scorching our faces and frizzling our hair. The din was terrific. Above the snap and hiss of the flames mounted the clamor of the blinded hounds and the trumpeting scream of the mastodons. Crazily they milled around, their huge feet trampling the mowing, gibbering, blackened things that toppled writhing from their backs. The stench of burnt hair and scorched flesh was sickening. But dodging through that barrier of maddened beasts like rabbits through a hedge, we followed the flames to the river and plunged through the glowing water to the other side.

A terror-stricken throng packed the streets of the city. Its narrow lanes were little more than mirey ruts between the jutting lumps of hollowed stone that were the houses. Under the relentless drive of the Thing beyond the light, these unhuman creatures had dug their wretched hovels into the soft black rock —a filthy mockery of the troglodytes of our own upper earth. With clubbed guns we rushed into the thick of the maddened crowd. The stench of the flame was on our clothes. We reeked of the flaming slayer that had swept their strongest men to dreadful death. They scattered and fled up the streets before us, toward a great hummock of stone that squatted beside the upward trail. Out of it burst six men, huger even than those we had seen, and more hideously deformed. They dragged a slighter, struggling form clad in tattered white. Dorcas!

They covered the ground in great, leaping strides, swinging her along between them like a nerveless dummy. Now one of them threw her effortlessly across his shoulder and with the others behind him, blocking our fire, he loped up the hill toward that pillar of blazing green. A fierce exultation swept through me—the exultation of the Thing! I flung up my gun. Hewitt's soot-stained face stared into mine; his hand beat down the gun.

"You'll hit her! Don't!"

His voice was a raucous croak; my answer a grating scream. My eyes burned with soot and ash. My legs were faltering, giving way. I stumbled and plunged headlong among the rocks while Prentiss and Hewitt went leaping over me, staggering up the steep hill.

I dragged myself to my feet and stood swaying. The five had stopped, had turned at bay, and with a shout Prentiss and Hewitt were at them, their clubbed rifles flailing with superhuman force. I saw Prentiss wrest a spear from the screaming giant that confronted him and plunge it butt first through the creature's

body and deep into the back of the one beyond. I saw the butt of his rifle splinter on one of those hideous skulls and the barrel bend as it crashed into another. The five were down, Hewitt was down, and Prentiss was racing alone after the yelling monster that carried Dorcas. It reached the top. It stood silhouetted against the blinding green shaft, the girl's slim body poised above its head. As its great arms swept forward to hurl her into the light my rifle spoke. The monster crumpled. She vanished. And the world went out.

CHAPTER X

The Pool of Life

I STRUGGLED out of darkness into the cold green glare of the Thing. On the hillside above me Hewitt was staggering to his feet. I called to him and stumbled up after him.

We came to the shaft of green. Two huge crystals of milky quartz flanked it. Between them and through them poured the light, revealing the hideous naked thing that sprawled on its face at the portal. I seized Hewitt's shoulder. Together we went down into the glare.

We were within a mighty oval emerald. A thousand feet above us curved the ceiling and as far in front rose the rounded, hollowed wall. They were smoothed out of the heart of the rock and they were afire with a pulsing, coruscating greenness that poured over them in the shifting, changing curtains of the aurora. Bubbles of emerald light rose out of the depths of the stone and burst through the drapery of light. And for all its blazing beauty that light was deathly cold.

My eyes fell. The floor was a shallow cup of black sand. Face up upon it lay Dorcas, Prentiss kneeling beside her. And beyond them was the Pool!

A queer hush seemed to spread from deep within me. The pounding of my heart quieted. My vision cleared. My breath came freely. The green glory was soft now, cool and soothing and kind. It filled me with a content such as I had never known could be. It filled me with a new, strange, vibrant life of its own, a life that was infinitely great and infinitely good.

I stepped down over the soft, black sands to the brink of the Pool. Hewitt was beside me, and bearing Dorcas in his folded arms Prentiss came behind us.

It was not large—a nearly circular pool possibly ten feet in diameter that filled the center of the floor. It was transparent, sparklingly crystaline with a faint, milky opalescence. A clear, white light seemed to rise from within it, pouring out of its facets like the fire of a great, living jewel.

For it was faceted and it was alive. Its surface was covered with tiny hexagonal cells, half a centimeter in diameter. From their cloudy centers radiated threads of white light, repelling each other, bending back at the boundaries. Beneath the surface I could see others, close-packed like the cells of a giant honeycomb. Out of them, from their radiant threads, came the white fire. A faintly glowing mist seemed to hover over it all, shrouding it from our violating stare.

Life has a Presence of its own, and the Pool was alive. I could feel it. It was as if a vastly developed human mind were prying gently at my consciousness, impressing upon my mind the fact of its presence, seducing me to subjugation. It *looked* alive. The tiny cells of its body were ever moving, shifting, changing their shapes and boundaries. A rush of flowing motion would sweep up through them, out of the luminous depths, and disperse over the quiet surface like a nervous tremor running through quiescent flesh. Deep within it filaments of lengthened cells would

form, like white-lit ropes, and crowd together in knots and bundles that drifted slowly through its body, cells parting before them, closing again after them. Then a little shiver of infinitely swift motion would pass over it and through it, and it would lie still, thinking, watching.

It could not see—it had no senses such as ours—but it could feel our minds as we could feel its vastly greater Mind—the Mind that controlled this buried world and its weirdly ancient life. This world was its body. Its eyes and ears and nostrils were those of the living things whose life and Mind it was. It saw with their eyes and knew what they knew. Their cramped and shrunken brains were vessels into which it poured its will, their brutish bodies its living tools. And we were alien to it, resistant to its searching, plucking commands. It must control us—or eliminate us.

SOMETHING made me kneel and touch it. A jolt of fierce energy surged through my arm and body. The Thing had a vast potential of its own, above that of the bowl of black sand in which it lay. It maintained that potential as it maintained the boundaries of its myriad cells—by conscious effort—by life. This was proof! The Pool was alive.

I rolled my coat and knelt on it. It was poor enough insulation, but perhaps it would do. I touched the Pool again. Again that thrill of eneregy ran through me, and I saw that the cells that I had touched were clouding, thickening, their white filaments dimming and going out. Then around them came a little vortex of cells brighter than the rest. Their gleaming whirl sucked down the dulled, dying cells whose life-energy I had discharged. The surface was dimpled for a moment by their swift motion. Then it was still.

"What is it, Cady?" Prentiss had ages of sorrow in his voice. Dorcas lay senseless beside him.

"It is life," I told him softly. "It is a Pool of Life. It is the great Thing that we have felt—the mind and soul of this world. It wants our bodies and our minds to be its own, to merge with the rest."

"I had felt it," he assented. "I was certain. But what does it matter, now? Dorcas is—gone."

I bent over her. Her pulse was still. She was not breathing. Yet her body was curiously warm.

"Prentiss," I cried, "there is a possibility. I feel it. Will you try?"

"What is it?" he begged. "Anything—I will try anything!"

"She isn't dead," I told him. "It is some sort of trance or coma, and I think there is just one thing that can bring her back again—the Pool. Lay her here beside it, close to it. Now concentrate—pour all your mind into it and her. Let it get the control that it is seeking, but hold your every thought to her. Make her part of your own mind, so that when it takes you and animates you with its life or will, it must take her and animate her too. Hewitt—you wait. Be careful. If we succeed, alone, try to bring us back to ourselves. If we fail, I ask you to help, to join us. Will you?"

"Sure," he said huskily. "Who wouldn't?"

We crouched there beside her, staring at her and the Pool beyond her. I drove every thought from my mind but the image of her and of the Pool. I saw her alive again—walking, talking. And I welcomed the power of the Pool.

I felt it growing on me—that same soft, subtle compulsion, that leading that I had felt before. I felt it exploring me, cautiously, seeking resistance, then as it found none swelling triumphantly, reaching out exultant arms into

the deepest corners of my will and memory—possessing me. With all my mind I held to the thought of Dorcas. That thought was a rock, a sort of island in a great, still pool of limpid peace. It irked me, annoyed me, but something deep within me held it firm. And I felt the mind of the Pool pour over it, dissolve it, and make me utterly its own.

I was not John Cady. I was no man. I was a great, vibrant awareness of all this cavern world. I was its trees, its moss, its crisp grass. I was its beasts, mastodon and sabre-tooth and rabbit. I was its brutish man-things, huddled in their skin-huts and rude caves. I was all of it at once, all together. *I was the Pool of Life!*

I FELT my mighty will withdrawing from that glowing world beyond the Pool. I lost my awareness of it, save for a shifting shadow of a shadow at the fringe of my consciousness. A man—a man's mind—was all my world. I poured into it. I filled it. I surged into its deepest corner. And I found a hard, dark spot that I could not penetrate.

I explored that yielding mind. I poured over and around that still, hard barrier and learned its shape and nature. It took form and as I realized it, it began to soften, to shrink away under my insidious urging. Then grimly it contracted to a tight, firm knot, and held. It defied me. It began to grow again—to crowd me out of that captive mind! With a rush it hurled me out and in that instant the world poured in, burst over me, and was gone, leaving one vision, one thought, one purpose—Dorcas.

Her mind was shrouded in gray mist. It clung evilly to me, oozed sluggishly about me as I thrust my brightness into it. I knew that clammy darkness. It was my antithesis—my utter absence. It was death.

Little by little I drove gray death out of that chilled mind. I lit its crannies with life. I roused its mired memories and made them mine. I felt the body that was part of it stir and wake. I felt two great thoughts rise in it and grow, crushing me, forcing me back. They had names. They were men. They were the men I had taken, the man I was. And as they grew, there appeared, in the placid minds of those men, similar thoughts, the thoughts that had defied me before, thoughts of her, that were no longer thoughts of me! She was out of me now, beyond me, and they were fast leaving me. My hold was weakening. One brain was closing—was closed. I hurled all my effort into the other and for a moment it faltered and yielded, then surged desperately against me. I felt it closing. The buried world flashed up before me, spun round me, and vanished in a mighty blaze of green.

I sat up.

I was John Cady.

I heard a glad cry: "John! Howard!"

Dorcas was alive!

CHAPTER XI

Captives of the Pool

WE were captives of the Pool. Into its green-lit shrine none of the creatures of the buried world dared to come. Had it willed it, I think, it could have broken down the resistance of their instinctive terror and brought them to it, but it did not. Somewhere in it was that shadow of piquance that we know so well in the human mind—the desire to overcome opposition alone, mentally, without calling on the myriad physical members of its vast body.

Had we tried to leave, to reach the outer world, all that body would have united against us. The sub-men were gathered at their rude stone city now, with their stubby-legged, otter-headed

hounds. Out of awe of us, who had dared the glory of the shrine, or, more probably, by command of the Pool, they brought food and water, and many other things in tribute, then drew back when we went out to bring them in. A troop of the mastodons kept near us, drawn up in a long, curved line across the narrow defile that led to the portal and the Pool. There would be no escape.

We kept a guard, some of us awake while the others slept. In sleep the Pool grew strong, and should it seize all our minds it would be the end of everything. One normal mind could wake us, if we were not absolutely lost, as Hewitt had done when we drew life into Dorcas.

She did not like to talk of those dreadful days before we came. We respected her silence. But little by little we learned the rough outlines of what had happened.

She had wakened to see Granby in flames. She had dressed—pulled on a few clothes over her pyjamas and slipped her feet into shoes. Her father was up, and together they went down the hill to see what had happened. Half way to the village they were confronted by the killers. A shower of spears buzzed around them, wounding her father and tearing her dress. And then they ran for their lives, with the howling, yammering fiends at their heels.

She fell and rolled into the ditch. That is all that saved her life, for the madness was on them. A spear drove through her coat and pinned her to the ground. Her head struck against the base of a tree. And that is all she remembered for a long time.

The Pool, seeing her with the saner eyes of the creatures that had not killed, the rear-guard of its fiendish army, took her for a specimen. When she came to herself she was flung over the naked shoulder of one of the monsters, and the boy was being driven along ahead. She cried out and tried to tear herself free, and the boy snatched a spear from the hand of one of the giants and tried to help her. She saw them kill him. I am thankful that she never witnessed the horror that they had left in the village, and at the home she loved.

Drawn by the summons of the Pool, the sub-men bore her endlessly down through the blackness of the great cave to their buried world. Twice in the march across its pallid plains they had killed bison for food. There was no effort, no fear on the part of the beasts. Their docility and the mechanical, unfeeling way in which they were butchered by the sub-human monsters that held her prisoner, sickened her. They simply came and were killed, and the sub-men filled their bellies with the reeking flesh because their mind, the mind of the Pool of Life, had felt their hunger.

For almost a day before we came, she had been held in the wretched hut where we had found her. Six of the killers watched her constantly. Had she but known it, they were the chosen eyes of the Pool, examining her, satisfying its superhuman curiosity. Had we not come when we did—but I dare not think of that! We came. We were here. And now she must forget.

With Hewitt and Prentiss, she seemed drawn to the sub-men and their weirdly contradictory life. Now that the fear and horror were gone, they were like beasts in a zoo—curiosities, to be watched. The three of them would sit on the hillside above the city and stare for hours at a time. When the attention of the Pool was withdrawn, the creatures would sit or stand like sodden clay images, helpless, barely able to move and breathe, yet when the mind of the Pool possessed them again, all of them, from the oldest man to the smallest child, would fall to cunningly flaking quartz for knives and spear-blades. Their great oaken spears hung, like so many logs

from the end of their arms when the Pool withdrew, yet under its direction they hurled them unerringly. They were machines, wonderfully complex and delicate machines, and without the power of the Pool to drive them they were mere lumps of flesh and bone.

IT was the Pool that interested me. I knew that there were scientists who had duplicated life-forms with silicates and other inorganic matter. I knew that they had mimicked cellular structure by the diffusion of colored solutions in a bowl of liquid, such as the Pool was physically. I knew that life maintains a difference in potential between a living thing and its environment—a potential that slowly disappears with death. I knew that there were a few who believed that radioactivity could generate life and was necessary to it. Out of the facts and theories of a cold, unimaginative science I built my knowledge of the Pool.

Physically it was a colloidal sol of silicic acid or silicates. It was activated by the radioactivity that emanated from everything in this buried world, this oval cavern of green light in particular. Its cells were maintained by concentration differences, and their shift and flow under the direction of its mental forces was due to the interface forces that chemistry is just beginning to understand. Only—had it been merely a pool of colloidal silica—those forces would have reached an equilibrium, those cells would have flowed together and become one solution, and the enormous energy stored in them would have dissipated. Life maintained them, consciously. Life kept up those potentials. Life changed the ever-shifting cells and moved them in groups, in unison, as our muscles move, only vastly more flexibly. This Thing was liquid life—a Pool of Life itself.

The sub-men were never quiet now. They were making spears in enormous quantities. New herds of mastodons and packs of the otter-dogs came in of their own accord from the plains and forests. All the animal life of the buried world seemed to be concentrating around them and their city. What did it mean?

Then came the clue that answered everything. Dorcas is an excellent shot with the bow. As a child she used to bag rabbits and squirrels regularly and on one hunting trip she got a bear. Hewitt was a crack shot with a rifle. All one day they had been arguing the merits of their pet weapons, and Dorcas had remarked that if the sub-men had bows they would stand an excellent chance against riflemen. That same night, she says, she dreamed of making a bow and arrows and hunting with them. In the morning it took nearly an hour to waken her. The Pool had broken down her guard. And no sooner had she left the cave than her cry of surprise brought us running.

"Howard!" she cried. "Look! They're making arrows!"

She was right. Through her—from what it had read or felt when it had submerged her mind in its own—the Pool had learned the secret of the bow. The sub-men would no longer be limited to their unwieldy spears. And then an awful thought came to me. Four days had passed since I had made myself part of it and freed Dorcas. For more than an hour my mind had been its own, and my memories bare to it. *What had it learned?*

The stinging gas that had tainted the air for the last two days flashed into my mind. Chlorine! The Pool was making chlorine!

The others stared as if I were mad.

"But John," protested Dorcas, "they are savages—feeble-minded ones at that. They are still in the Stone Age—little more than animals. Don't be foolish!"

"THE Pool isn't feeble-minded!" I replied grimly. "They learned how to make arrows, didn't they? They read your mind—or that damned Thing in there did. I'm not afraid of them. They're nothing but so much pulp. It's the Pool that is driving them, and you know it as well as I do. I'm a chemist. It got at my brain and learned what I knew. Maybe I worked with their hands, myself, while I was part of it. I tell you they're making chlorine and they—it—has some use for it!"

"We must be sure," said Prentiss. "What would they need? Where are they apt to be?"

"They need salt and water—no more with their potential. You know the tremendous electrical energy that that Thing can control. If it can't supply the current itself, it will make batteries. But Prentiss—why does it need the chlorine? What is it planning?"

"I intend to find out," he replied coolly. "Cover us, Hewitt, and keep an eye on Dorcas. She can have the other rifle. You and I are going down there, Cady, and if you are right we will have to stop it, somehow. Putting poison-gas and maybe gunpowder in the hands of that Thing is like letting hell loose!"

The trees were near on the right, and the line of mastodons had been withdrawn to the city. Dashing into the shelter of the trees we raced at top speed down the hill. We heard the trumpeted alarm of the mastodons and the clamor of the sub-men. We heard them rush past us up the hill, and the crack of rifles from above. Hewitt and Dorcas were diverting their attention. Then we were among the stone huts and out again on the other side.

Beside the creek was a huge heap of crushed rock-salt. A large double-necked crock of rudely glazed red clay stood beside it, and a long row of smaller, open jars. Thick wires of native copper and what looked like zinc led from them to the electrolytic cell, and a bloated dear-skin was tied over the neck of the jar. The Pool had drained my brain. It was making chlorine!

I went over to a second pile of whitish crystals that lay beside the first. I tasted them. Saltpeter! They had sulfur and they had charcoal. Black powder was a matter of mixing.

"Come on back," I said. "I was right. They have chlorine and they will have gunpowder. We have to think and act fast or something is going to get beyond stopping."

They let us return, between two menacing lines of the sub-men with ready spears. The mastodons formed their line a bare fifty feet from the portal of the cavern of the Thing, standing hideously ready in the green glare that poured from between the crystal shafts. There would be no second escape!

We held a council of war. It had to be war now. There was nothing else. And there seemed to be just one thing to do. Prentiss expressed it simply.

"Someone has to go to that Thing again, willingly, and let it take him. It cannot be Cady. The damage is probably done already, but if the Pool learns any more chemistry it may get out of reach of our few resources. Hewitt we need for his marksmanship. Besides, guns are a thing that it has not yet learned to make or use. I will go. If you cannot get me back, chance Hewitt."

We stood and watched him go. Dorcas was deathly pale and her hand in mine was icy. He strode down to the edge of the Pool and stood staring into its lambent depths. It seemed that it was a great blank eye, staring back. His head bent. His body went lax. And in the Pool the stir of life was swelling, the white filaments growing brighter, the dimpling vortices swirling madly over its dappled surface. His was a mind

that it had never fully overcome, and it was eager—horribly eager. It was all astir with evil, glinting life. Slowly his knees bent and he crumpled to the black sands.

FOR two hours by my watch we waited, the green glare of the cavern beating down on the still form and on the quiescent Pool beyond. It was a terrible strain on all of us, Dorcas in particular, but it had to be. Then we tried to wake him. We dragged him out into the open air where that cold, green light no longer beat pitilessly upon him and the Pool no longer glimmered evilly in its setting of jetty sand. We shouted. We jangled the tin-can rattle that had saved us before. We pumped at his arms and shook him savagely. It was useless. He lay like a log, his face drawn and white, his pulse barely moving.

I went back into that cold green hell and I stood on its black sands and cursed the placid Pool. Its shifting cells twinkled and sparkled in mockery. It heard. It understood. For the rigid body of Howard Prentiss rose to its feet and stalked like a thing of metal down the hill toward the city of the killers. The ranks of the mastodons parted to let him pass, their great trunks swaying, their little eyes gleaming maliciously in the green light.

Dorcas screamed. I reached the crystal portal in time to see her duck under the massive, threatening form of a mastodon and catch Prentiss by his arm. He never stirred. His arm came slowly forward in time with the beat of the swaying mastodons. She stumbled and fell.

A red-black haze seemed to rise within me and burst. I knew I was shouting like a crazy man. I knew I was shooting wildly, madly, and that with every smashing explosion a pallid man-thing crumpled where he sat. I knew that Hewitt was shooting too and that I had reloaded and emptied my rifle clip twice. I knew that the little eyes of a mastodon had gone dripping red and that it screamed horribly with pain and crashed headfirst into the basalt rampart before it fell in a dead lump. I knew that in the stone city the pallid sub-men were milling about in confusion and that their hellish hounds were racing up the slope, their bellies hugging the ground, a hail of lead checking them and beating them back. And through it all I saw a tall blonde man who stalked slowly down the hillside, marvelously untouched—a man who stopped—who turned—who plunged up toward us with a shout and scooped up the limp form that lay senseless on the ground! He hurled his big body between two of the plunging mastodons, evading their flailing trunks by sheer magic. He was running toward me. He struck up my arm.

"Stop!" cried Prentiss. "I'm all right! You got me back!"

CHAPTER XII

The Threat of the Buried World

I THINK my brain had been like the gathering charge of a thundercloud, piling up, waiting to smash through the air to the ground in spitting flame. The tension of my struggle with the Pool for mastery of my mind, the growing horror of Prentiss' coma and of Dorcas' dull despair, the final gloating triumph of the Pool—it was too much! All my pent-up emotions burst loose in an unchecked torrent of blood-mad hunger to kill, to destroy. They cleared my brain and they threatened the body of the Pool, diverted its attention and let the thought of Dorcas and the sound of her last despairing cry break through into Prentiss' consciousness. It coursed through him like fire. And, before the Pool could regain its control, he escaped it.

He sat there in the green glare from the cave and stared at the buried world with lurking horror in his eyes. Slowly he told us of what he had known when he was of the Pool and knew its plan.

"It is tremendous!" he muttered awedly. "It is the mental life of every living thing in this entire cavern-world. As its will crept into me I began to catch glimpses of things—feelings more than sight, really. I saw you three standing over me. I saw the flake of quartz that I was chipping. I saw the otter-dogs snarling about my feet, leaping at me, clamoring for meat, and I threw them the flayed carcass of a deer.

"I tore at that deer with my naked teeth and felt its hot blood in my throat! I was staring at the crystal columns of the cave-mouth, staring into the green light that poured from between them, and as I stared I swayed and swung my trunk. I guzzled water from the river beyond the hills, and among the spreading ripples I saw my flaring nostrils, my mighty horns, my hairy throat. Then suddenly I saw my body stalking down the hill toward me, and Dorcas running after it. I heard her scream and saw her fall—saw you burst from the cave and fling up your rifle. I felt something tear through my body. I felt blood, my blood, running down my thighs. Then there was utter turmoil, confusion. One vision rose out of all the rest—Dorcas, screaming and catching at my arm, then falling. I felt the Pool trying to force it back, and failing. And then suddenly I was seeing with my own eyes."

He paused. Dorcas drew closer to him and he took her hand in his. In a dulled, saddened monotone he went on.

"You were quite right, Cady, when you said the Pool knew your chemistry. It has chlorine in those inflated skins, and it has been making gunpowder—ordinary black powder. It wants your memories too, Hewitt. It knows that you are the master of the guns, and it wants you. It wants anything that will kill or maim—anything that its body can use for weapons. You see—it intends to conquer earth.

"IT has memories that I felt as my own. It destroyed Granby as a test, to try its body in the strangeness of the outer world. It brought you here out of curiosity, Dorcas. You were a specimen of the sort of body that it would find up there, and which it intends to make part of its own vast, many-membered body. When we came it had learned that you could resist its control, and it feared us and tried to kill us. It sent its beasts—the mastodons, the ground-sloths, the bears—and we killed them or escaped them. Then we came here, to where it was, and it let its curiosity overcome its caution. It decided to keep us here, unmolested, while it wore down our unnatural resistance and overcame our minds. What it found in them it would use in its physical conquest of our upper world. But we were too strong. We fought it, physically and mentally, and we almost always won. It had to change its plan, in part.

"It no longer intends to make the men of our world witless automatons, like these wretched human things. Its own human beasts breed fast enough to populate the land it conquers, and once it gets up there, at our cities and the minds of our scientists, it can use our machines and chemicals as well and better than we can. It can turn our own weapons against us—our own minds and bodies. It is going to wipe human life off the face of the earth and replace it with these degenerate sub-human things that haven't even the wit to move, unless it wills it! And it can do it! I know that—you know it! Its tools and weapons are crude now, but once it gets a foothold outside and learns to use the things that we use

—God, it's horrible! We haven't a chance!"

"But Howard," pleaded Dorcas, "what can we do? How can we stop it? We must be able to do something. There's no one else—we have to. But how?"

"I don't know," he answered despairingly. "I have tried to think, but it's no good. We would have to kill the Pool."

She turned to me. "John," she begged. "You're a chemist. You know about life and poisons. You told us how it could be alive. Can't you kill it, somehow?"

"We have nothing to work with, Dorcas," I told her. "We couldn't be sure that ordinary poisons would work, even if we had them. It has silicon for a basis instead of carbon. It is utterly unlike anything science has ever met or even thought of. If I had a fully equipped laboratory I could only try—hit or miss—and I have nothing."

"But it's alive," she insisted. "Life can't be so very different in it and us. It's like our protoplasm, isn't it? Didn't you say that? It has cells and there is a potential difference between them, and it has to eat, even if it only feeds on radium or radiation—whatever that green light is. You ought to be able to kill it or put it to sleep or something, the same way that you would an animal or a man. Oh if only I had some chloroform! I'd try it if you wouldn't! I'm not afraid of what would happen!"

I caught her arm. My eyes were shining. "Dorcas," I cried huskily, "you've hit it! We can kill it!"

CHAPTER XIII

Silica Gel

PRENTISS was on his feet. "What do you mean?" he demanded. "If you mean gunpowder we can't get it, and anyway that would only scatter it. You can't kill a simple protoplasmic sort of thing like that by blowing it up. I thought of that."

I waved him down. "It isn't that. I don't mean physical force. I mean chemistry—poison, just as Dorcas said. We can kill that Thing and I'll bet we can kill this whole damned world with it!"

"Man, you're crazy!" he protested. "We haven't any poison, and we don't know how it would work if we had. We can't waste time hunting for one. The Thing may attack any day now. You know that."

"Sit down!" I cried jubilantly. "You're the one who's crazy. Dorcas and I will show 'em! And by the Almighty, it's going to be the biggest fun I ever had in all my life, to see that damned Thing die!"

I jabbed my finger at him. "You're a scientist," I said. "Where have you been for the last three years? Haven't you heard about Bancroft and what he has been doing at Cornell? Don't you know that he has been diagnosing cases of insanity, that had the doctors fooled, and curing drug addicts—all with a few common chemicals? Why, he's cured patients that the specialists hadn't even thought of treating.

"They don't like it at all. None of your rule-of-thumb medical geniuses like it. It's chemistry—not medicine. It came from a theory of narcosis that some old Frenchman, Claude Bernard, had back in 1875, not from a lot of statistics on who died and who didn't. He can use the same thing for too much coffee and for a dope-fiend, and it works both times. I tell you, you big ape, we've got it!"

The look on his face was laughable. He simply gaped like a drowning goldfish. Hewitt wasn't much better, but I saw light dawning on him. Being a reporter, he had probably written the thing up when it was new and duly forgotten it.

As for Dorcas, she was almost bubbling over with unholy triumph. She knew well enough what I was talking about. It was a wonder she hadn't thought it all out by herself in the first place.

I beckoned to the two men. "Come on over here away from the mouth of the cave and take a lesson in chemistry," I said. "You certainly need it."

They followed me over to one side, where we were about as far from the Pool as we could get. I didn't like the idea of planning its destruction under its very nose, so to speak. The turmoil in the city had died down, but there was a wicked red gleam in the little eyes of the mastodons that I didn't like. They wouldn't stand for much more.

"Here it is in a nutshell," I proclaimed in my best pedantic mode. "Insanity, anaesthesia, and sleep all come from the coagulation or dispersion of the colloidal protoplasm of the brain cells, or some part of the nervous system. If you dilute it—disperse it—you get one kind of insanity, Insanity D. Bancroft calls it. If you coagulate it you get another kind, Insanity C, and then sleep. And if you go too far and they set to a gel or jelly, or become too diffuse, you have death. Simple, isn't it?

"THIS Pool is made up of cells of a colloidal protoplasm, just as a brain is, only with silica in place of proteins and albumins. It is a brain—the biggest, most powerful brain that this planet has ever known. All we have to do is coagulate it—and the coagulation of silica is irreversible, so that we needn't worry about its coming back again. Dorcas, I congratulate you! You've saved our little planet from a lot of trouble, and you'll never be thanked for it at all. You have become one of the holy martyrs of science."

Prentiss still wore that pained look. Hewitt's face was simply a blank, but he was thinking fast behind it. It was Prentiss who was really stumped. These biologists and their kind choke over a new idea.

"Granted that you are right," he began, "and I suppose you must be if it has been published, will you please tell be how you propose to coagulate that Thing in there? I'm no chemist, but as far as I can see you have absolutely nothing to work with. You said so yourself not fifteen minutes ago."

I grinned broadly at that. "I'm the chemist here," I told him. "You do what I tell you, and you needn't worry about results. I haven't been setting silica gels for the last two years for nothing."

"What will you use?" he asked doggedly. "I want to know. We must be sure—"

"Sure!" I interrupted. "Why, man, it's dead easy. There are dozens of ways to do it. We could do it with fire—cook it like an egg. We could use acids or alkalies, or highly ionized salts. We could dialyze it—leach out all the salts that are in it by osmosis through some sort of membrane."

"I don't care a hang for what you can do," he snapped. "What *will* you use?"

"Don't snap at me like that," I chided gently. "It's a sign of Insanity C. Your little grey cells are agglomerating. But if you must know, we're going to use Mother Nature's favorite poison, kind to man and beast and beloved by every bachelor and hen-pecked husband from here to Tasmania." I turned to Hewitt. "Where is that crock I saw you with the other day?" I demanded.

He turned brick-red under the dirt. We hadn't had much water for washing. The sub-men couldn't see our need for it, and Dorcas monopolized what we got. "Why—I—this is, I—well, it's inside," he finished lamely.

"Go get it," I told him. "Don't be ashamed of it. Great guns, man, it's go-

ing to save our skins!—to save the very world!"

He disappeared into the green glare. In a few moments he returned, his arms wrapped around a huge red-clay jug. I pulled out the wooden plug that stoppered it.

"SMELL that," I ordered.

Prentiss bent carefully over it—sniffed. He drew abruptly back.

"Whew!" he cried. "That's the rankest white-mule that I ever nosed into! Where in perdition did you get that?"

Hewitt jerked a thumb at the town below. "They drink it," he announced. "They make it out of some sort of plant. I—I guess it's pretty strong stuff."

"It's close to eighty percent grain alcohol," I told him. "They must have leather gullets. How did you make out?"

He grinned sheepishly. "It put me out cold," he said. "It was that night the Thing got at Miss Cady here and learned about arrows. I was ashamed to tell you."

"That's all past and gone," I said heartily. "Forget it. What matters is can we get any more? Prentiss, how big is the Pool—what volume, I mean?"

He pursed his lips. "About ten feet across, isn't it? It isn't very deep. Say two hundred cubic feet—roughly twelve hundred gallons."

"And that holds nearly sixty when its full. Twenty of them would do it if we used equal volumes, but we needn't. Hewitt, can you get ten full crocks like that, or do we have to go after them?"

"I can try," he said. "I got this one. Where is that damned Thing busy now?"

"We can go through our regular trick again, I suppose," I replied. "We needn't give in to it—merely draw the focus of its attention to us and away from you."

"That will do it," he agreed. "If you'll just get started, now, I think I can help you out."

We went inside. I prayed that it would be the last time that we would have to go through the ordeal of having our minds sucked into the mighty world-mind of the Pool. As we went down through the green glory to the Pool, Prentiss stopped me.

"Keep out of it, Cady," he said. "Dorcas and I can handle it. I want you to keep an eye on Hewitt. If he starts anything now the Pool may simply let things ride and wipe us out. Be doing something, too, so that we can concentrate on you and keep our minds off him."

I picked up the coffee can that we had used before, when first we overcame the insistence of the Pool. Slowly and rhythmically I began to tap it, like a little tin drum. Hand in hand Dorcas and Prentiss went down to the Pool. They sat down on the black sand beside it and turned to watch me. In the chill green glare of the cavern I could see that their faces were drawn and tired. The last time Prentiss had gone under, we had nearly lost him. Would he be able to escape again?

I made the rhythm slow, and they swung their bodies from the hips in time with its beat. I saw the rapt look steal over their tired faces, saw that they were at rest, one with the Pool of Life. Their swaying stopped, but still I kept on tapping, tapping, tapping to the same slow tune. And as I tapped I watched Hewitt.

HE walked boldly up to the line of mastodons, holding up a tuft of the dry white moss and his cigarette lighter. The sub-men sat lax and expressionless astride the thick necks of their giant mounts, but at the sight of the tiny flame a queer glow crept into their muddy eyes. He touched it to the tuft of moss and as it puffed into flame they drew back in sullen fear, then, fascinated, leaned close again. Even the mastodons were watching it, the slow swinging of

their trunks stopped, but eyes glaring.

One of the sub-men stretched out his hand. he wanted it. Hewitt held it just out of his reach. He kicked the big crock and pointed to the town. He raised his ten fingers. He held out the lighter again. The sub-men did not stir.

Gripping the unwieldy jar betwen his knees, he tipped out ten little puddles of the stuff in front of ten of the mounted creatures. The reek of raw alcohol was stifling in the still air. There was no mistaking what it was. Then he touched the flame of his lighter to each. A licking blue flame shot up and the saturated moss began to burn fiercely. Again he kicked the big jug and pointed down at the town. And slowly the ten creatures prodded their mastodons around and went shambling down the hill!

CHAPTER XIV

Madness of the Pool

WITH my heart leaping exultantly within me I went prancing around the edge of the lambent Pool to the tap, tap, tap of my little tin drum. It was all alive with spinning vortices, drifting back and forth across its still surface like the ghosts of tiny whirlwinds. Its white filaments knotted and writhed in an ecstasy of eagerness. Then I realized that it was trying to overcome me—that it had the others.

For the last time I felt that searching, plucking power in my brain. There would be no other time if I failed now. Dimly I wondered about the scientific nature of this vast mind-force that was sucking at my consciousness. I seized upon that thought and held it, trying to crowd all else out of my mind. I must not give in yet. Hewitt must have time—

It was life that I felt, I decided dreamily, the alien life of the Pool. It was a life like that which binds together the cells of the human body into a co-ordinated unity, but here its body was a cavern world that undermined an entire state. And yet—how could it make itself felt at a distance in my brain?

Telepathy—what was telepathy? Light and matter and electricity, energy and the force by which it manifests itself—all are the result of warpings in the geometrical structure of Space and Time. Suppose life were energy, and suppose telepathy were that force akin to the gravitational pull of matter or the radiant pressure of light whereby life manifested itself at a distance. Life acting upon life—that was the truth of the battle that was going on in my brain. That was what I felt. My life was being absorbed into the greater, more powerful life of the Pool, and the consciousness that was my awareness of the life in me became a tiny part of its vaster consciousness. And like ourselves it could focus its giant mind on but a limited portion of its world.

I was nearly gone. Hewitt says that I lay sprawled on my face, my head nearly in the Pool. To me, lying there, it seemed that I was thinking my own thoughts, working out my own truths. Was it that, or was it the Pool of Life itself, my mind submerged in it, giving up its vastly greater knowledge to me?

He came whooping into the cave, roaring his glee. With something like a snap I awoke. I saw Dorcas stirring and Prentiss rising to his feet. We had won! The Pool was doomed!

We rolled the ten huge crocks into the cave of the green light and set them in a circle around the Pool, close to its edge. Outside a sheet of clear white flame went up from the other moss-stuffed jar. Drawn close around it, their hideous faces painted a ghastly green by the light that streamed from the cave of the Pool, the sub-men crouched on the necks of their huge

mounts and stared greedily at the licking flame.

"Stay inside," I told the others. "When the Pool begins to set there's going to be hell to pay outside. Keep the guns handy and don't hesitate to shoot. We've come this far alive and we're going to get out."

I faced Dorcas across the Pool. It was quiet now, its glowing surface unruffled. I felt that it was puzzled, probing at our minds for an answer, hoping, wondering and, maybe, fearing!

"NOW!" I cried. With a heave I toppled the great crock into the Pool and sprang to the next. With a single mighty thrust Prentiss hurled his into the depths and seized another. One after another they went rolling down the brink, the odor of raw alcohol filling the cavern. We sprang back. And now the Pool awoke!

As the alcohol flooded over its surface and sank into the cells, their opalescence changed to milky opacity. In the layer beneath, the cells were coagulating. A wave of frantic motion swept over it. Like a giant amoeba it withdrew, hurling its liquid mass into a high peak at the center, then as its momentum failed the torrent of lashing fluid surged back, mingling with the alcohol, setting to a sticky, half-solid mass. In the little space that remained at the very center of the Pool all its failing energy was condensed in a single great burst of pure white light whose pressure was almost ponderable. It died away. Only the twitching, spinning rush of the trapped vortices showed that life was still in it, slowing, crowding as the ragged line of opacity crept toward it across the vibrating surface.

From the portal came the rattle of rifle fire. I raced across the floor to where Prentiss and Hewitt were kneeling, firing as fast as Dorcas could load the magazines. From beyond the crystal pillars came a pandemonium of trumpeting screams and the gibbering howl of the sub-men. The world had gone mad!

Below us in the stone city seethed a maelstrom of thrusting, slashing maniacs, blood-crazed, tearing with teeth and nails at the throats and bodies of their fellows. Down the steep hill charged a score of riderless mastodons, and after them rushed a curtain of fire from the place where the crock of alcohol lay broken on the ground. Into the town charged the mastodons, their great trunks groping and flailing, their massive feet crushing to bloody pulp the man-things that fell beneath them. Their little tails were thrust stiffly erect and their tusks dripped red. Full at their throats leaped the hell-pack, only to be beaten back and crushed underfoot. Then out of the steppe came a foe worthy of combat!

We heard the thunder of their trampling feet above the din of the maddened town. We looked up to where the steppe dropped down to the fields beside the stream. Plunging into the mêlée came a white wall of mighty recurved tusks and snaky trunks, hairless and sickly white, while behind rose the high-peaked skulls and gigantic bodies of elephants that towered a yard and more above the giant mastodons. There were hundreds of them, packed together in a single hurtling mass that crashed unchecked through the edge of the town and into the thick of the fray. Their squeals of fury mounted shrilly above the screams of the mastodons and their rearing, plunging bodies battered their way through flesh and bone like steel projectiles. Columbian mammoths they were, the hugest of all creatures of the ancient New England forests, and before them the mastodons were swept away like chaff before a hurricane. Then sud-

denly deathly silence fell upon the scene.

I looked back at the Pool. The madly spinning vortices had vanished. The glowing filaments were fading. The life-fire of the Pool was dying and its cells clouding. The Pool was sleeping.

All the world slept save us four. Towering over the carnage they had wrought, the giant mammoths swayed and sank slowly to the ground. A single huge trunk wavered upward. One last shattering blast of defiance thundered among the hills. A sluggish tremor ran over the surface of the Pool. A thin, high, crystal ringing note rose from its vibrating body. One last vortex spun viscidly, stopped, oozed back.

The Pool of Life was dead.

CHAPTER XV

The Last of the Buried World

RADIUM speeds decay. By the time we reached the mouth of the cave that would lead us to our upper world, the odor of rotting flesh hung heavy on the still air. The glowing clouds drooped lower. The leaves of the giant oaks hung limp and flabby from lifeless twigs. Even the crisp white moss of the forest floor was drab and slimy underfoot.

The battling mammoths had trampled out the flame before it reached the crude black powder that the Pool had made. We closed forever that green-lit ovoid where the Pool of Life lies white and hard in death. We took skinfuls of the alcohol that we found in one of the rude stone huts, for now there was no guide to show us the path through the crystal labyrinth of the great cave. We made a rude lamp of our coffee can, with a wick of twisted cloth and the oil charged alcohol for fuel. Not until we must, would we use of precious batteries.

We had come down in a little more than a day. A full week passed before we managed to reach the subterranean river and follow its winding course up to that great room where we had lost the white killer and found the shred of cloth that gave us new hope. Feebly we dragged ourselves up the long, slippery flow-stone slope. Wearily we lifted Dorcas through the hole into the last level—the level of home! On leaden legs we passed the pond and came into the cave that had marked the start of our weird journey into the bowels of the planet. Grey light shone through a small hole in the mass of tumbled rock that blocked the mouth, and the bodies of the sub-men were gone. The way was open to the outside world.

No one really believes our nightmare tale of a Pool of liquid Life and a green-lit world of beasts and subhuman men that had been gone from earth for tens of thousands of years. Hewitt's paper would not print it. No scientific journal will consider it. Yet—we have Dorcas and for months we have all been suffering from what the specialists admit are radium burns. A little more and our very bones would have been rotting in that cavern world where the clouds and the rocks and the matter of Life itself burn with a wan green-white light. There is a newly discovered treatment that has helped. Dorcas is nearly well again.

I am on the train again as I write this. Hewitt sits facing me in the seat ahead. He has bought a paper—an extra—in Bennington. He hands it to me with a smile.

Huge black headlines stream across the page:

"LOCAL TEAM WINS PENNANT"

In a lower corner of one of the inside pages is a little paragraph, which reads as follows:

"RUTLAND, Aug. 31 — Miss Dorcas Jane Cady, formerly of Granby, will be married to-day to Professor Howard Prentiss of Bradford College. Her cousin, Dr. John Cady, will give the bride away. Mr. Theodore Hewitt of New York is to be the best man. The ceremony will be performed at the home of Doctor and Mrs. George Putnam of this city, with whom Miss Cady has been staying since the Granby tragedy of a year ago."

Hewitt taps it with his forefinger. "Putnam believes us," he says, "He'll get up a posse and explore that cave some day and then there'll be a radium boom in old Vermont. I guess I'll buy me a chunk of that mountain with the cave in it. Want to come in on it?"

"How about Prentiss?" I ask.

"He's in," grins Hewitt. "He had the idea. He wants the anthropological rights on what we claim.

"What's yours?"

"I'll join you, I'll tell him, and I'll take a quarter of it for Dorcas, for a wedding present."

"No chance," says Hewitt. "I'm giving her that anyway. Stick to your own share. What'll you have?"

"I am a chemist," I reply. "Before they tear the place apart, I'd like an option on the Pool of Life."

"Sure," he grins. "That's what I thought."

THE END

What do you know?

1. What is the origin of elzevir type? (See page 8.)
2. What is the origin of caslon type? (See page 8.)
3. How did initial letters for manuscripts lead to the use of type? (See page 8.)
4. Do we know who invented metal type? (See page 9.)
5. What is the meaning of the word "microcephalic"? (See page 17.)
6. What is the characteristic of a microcephalic man? (See page 17.)
7. In what geological formation does the sabre-toothed tiger, *semilodon*, belong? (See page 31.)
8. What is the name of the extinct ground sloth? (See page 35.)
9. What is a feature of shadows on the moon, especially those of natural features of cliffs and the like? (See page 55.)
10. What might be a characteristic of ether waves, which would give no light? (See page 62.)
11. What is a striking characteristic of the sun's corona, only to be seen in a total eclipse? (See page 82.)
12. What do the numbers 85 and 87 indicate in reference to the table of chemical elements? (See page 88.)
13. Where does element 85 fall in the table of elements? (See page 88.)
14. How many noble gases are there, and what are their names? (See page 90.)
15. Do they enter into chemical combinations? (See page 90.)
16. How does the author describe elements 85 and 87? (See page 90.)
17. What element can attack silica and glass? (See page 90.)
18. What might be anticipated about elements 85 and 87? (See page 90.)
19. What position does radon hold in the table of elements? (See page 91.)
20. What is the Malayan kriss? (See page 97.)
21. Who among the American aborgines are thought to have used slings? (See page 109.)
22. What is the South American name for the alligator pear? (See page 125.)
23. What is the approximate distance of the moon from the earth? (See page 130.)
24. What is an approximate locus of the periphery of the earth's sphere of attraction referred also to the moon? (See page 135.)

Moon Pirates

By NEIL R. JONES

Conclusion

We are now told of the further adventures of our party of interplanetary voyagers. The story grows in excitement, the dealings of the pirate chief and his subordinates and the final ending of the adventures are graphically portrayed. There is plenty of excitement in this second and concluding installment of the story.

What Has Gone Before:

The story opens by telling of the beginning of an exciting series of cosmic adventures upon the "Interplanetary Line" of space ships between the three worlds, Venus, Earth and Mars. It concerns primarily the exploits of five people, the pilot of a space ship, Jan Trenton; a professor, E. J. Crayton; an adventurer, Bert Sorelle, and James Clarkford, wealthy manufacturer, and his daughter Suzette, whose lives fate has queerly brought together.

The five take passage upon the space ship "Delphon," which is later overpowered by moon pirates, looted of its treasures, wrecked and its passengers and crew are either killed by being fired from the disintegrator gun or else taken into captivity.

The lunar brigands, whose rendezvous is situated in the moon's interior, is ruled by Carconte and Nez Hulan, the latter the scientific mastermind of the moon pirates, who for three long years lay dead in space to be later reclaimed by surgeons, who supplied him with an India rubber heart, and aluminum cranium, radiophone ears and made him a robot with a man's brain. They recalled him to life without a soul, so that he became a super-intellectual, human machine of such warped genius as held his victims in frozen terror! The five heroes of the tale are now in the hands of the moon pirates, who have their space ship, "The Jolly Roger," and their center of action in the moon. A spy is found to have been among the passengers of the "Interplanetary Limited" space ship.

CHAPTER VI

Imprisoned in the Moon

THE two pirate leaders left the presence of their captives to superintend the descent of the "Jolly Roger" into the moon crater, leaving a guard of several of the lunar buccaneers by the doorway of the chamber leading into the long corridor of the space ship

Now that they were alone once more, Suzette approached the young astronaut who had so nobly defended her at the risk of sudden death to himself. Placing her hand in his, the girl turned her sweet face up to him, and her pretty blue eyes gazed into those of Jan Trenton.

"How can I ever thank you?"

"I couldn't stand by and see those brutes maltreat you," he said, placing a hand softly upon her wavy brown hair. "None of us would let them do that, and at the time the responsibility fell to me in view of the fact that I was closest to you."

"Stay close to me," she whispered, as she shuddered in recollection of the attempt upon the part of the uncouth, villainous pirate to seize her.

"I shall," he replied. "Don't give up hope until the last moment; then if it is necessary, swallow this."

He held a small capsule out to the girl.

"What is it?" she asked.

"Radium," he said. "When the container is dissolved, loosing the destroying element within, death is nearly instantaneous. Take it; it is the last one I have."

"But you?" she asked.

"There are other ways for us men to

From the metal palm of his hand there shot a yellow ray of light which burned a clean-cut hole clear through the chest of Brentley, who fell choking, gasping and bleeding in a lifeless heap upon the floor.

die. Being a woman and under such circumstances, you have no other choice."

She smiled wanly.

"But wait until the final moment," he added, "until the last vestige of hope is gone before giving yourself over to death!"

"Thank you so much," she replied. "I feel a great deal better now."

"We're descending the crater!" exclaimed Sorelle from the window where he, Trenton, Clarkford and Quenden were watching the maneuvers of the space ship in its approach to the moon's pitted surface.

Jan Trenton and Suzette Clarkford now turned their attention to the interior of the crater into which they were gradually sinking. The rugged walls of the depression cleft here and there with gaunt, black shadows, swung slowly past the windows of the space craft, as it sank deeper and deeper into the moon pit. The sunshine threw its dazzling glow upon the side of the moon crater, at which they were looking; the shadows stamped in sharp relief through the lack of an existent atmosphere to diffuse and spread the light.

"How weird and solemn it all is!" said the girl. "I have never been to the moon before!"

"The moon does have rather a strange, depressing effect upon one," said Sorelle.

"And especially so under the present circumstances," observed Clarkford gloomily.

With a sudden cessation that was startling, the glow of sunlight disappeared, leaving the captives to stare abstractedly into the Stygian gloom of the lower depths of the crater. Complete blackness surrounded them; they had passed below the level which marked the extremity of the sun's rays within the deep confines of the pit. Then there was a sudden illumination which dispelled the darkness as the lights of the "Jolly Roger" played about upon the rough walls of the pit, guiding the pirate craft to its destination upon the floor of the crater far below.

Presently they came to rest, presumably upon the bottom of the pit, several miles below the moon's surface.

"Have we arrived?" queried the girl.

"I don't know," replied the young astronaut. "We have stopped moving."

"Look!" exclaimed Quenden, pointing to a huge, round cave's mouth which lay before them at the extremity of the crater's interior. "I wonder where that goes?"

"We shall soon find out," said Sorelle, as with a slight jerk the space craft moved slowly toward the dark opening which, as they approached it, yawned larger and larger like the cavernous mouth of an abysmal creature born of a fantastic dream.

The opening loomed larger, received them, and then they were engulfed within its interior which led downwards, on a gradual incline. The tunnel extended for nearly a half mile, the slant of the great underground shaft bearing the craft of the moon pirates deeper into the bowels of the lunar satellite. Eventually, they halted before a smooth wall of rock, its polished surface contrasting strangely beside the rough, jagged interior of the tunnel. To the surprised eyes of the prisoners aboard the "Jolly Roger" this rose slowly upward, revealing the confines of a cavern beyond. Into this, the space craft once more proceeded upon its way. Behind it, the great wall of rock closed gently, hermetically sealing the rocky chamber of the air-lock cavern of the moon pirates.

A pause of a few minutes was necessary for the vacuum of the air lock to be filled with atmosphere which was manufactured by the moon pirates, and then farther on, another wall of rock arose to allow them further entrance.

They continued their progress, the walls of the air lock closing behind them. From here on, the tunnel was brightly illuminated, and finally terminated in a subterranean hangar for a number of ships of various nondescript types, which had been captured by the moon pirates and brought to this secret recluse of the lawless buccaneers of space.

Foremost in the minds of the captives from the "Interplanetary Limited" was the conjecture concerning what had become of the crews and passengers of these space flyers, which suggested tragic encounters with the moon pirates in the seas of space between the orbits of Mars and Venus. What a story they could relate if they were only gifted with speech. It would be a tale of horror and bloodshed, of pillage and murder, of incarceration and torture, of terrible deeds and fates meted out to helpless captives by the poisoned intellect of Hulan's perverted genius!

"Why didn't they take our ship and bring it here too?" queried Clarkford.

"The tunnel isn't large enough for it to enter." replied Quenden. "This ship just about fits the tunnel nicely, and if you remember, the "Interplanetary Limited" was about twice as large as this pirate craft."

"Look!" exclaimed Jan Trenton pointing excitedly at one of the assembled space ships which were scattered about the broad cavern. "There is the 'Antarian,' the small space craft which disappeared over a year ago, and trace of which could never be found! The disappearance aroused the wonder and curiosity of three worlds, and to this day it has remained unsolved! These devils were responsible for that too!"

"Were there people aboard?" asked Suzette Clarkford.

"Yes," answered the astronaut, "and that is why it aroused such a furore for a short time. An important government official of the Martian city of Heddux was aboard, and quite an extensive search was made, but no trace of the ship could be found."

"Which goes to show just how much chance we have of being rescued," observed Clarkford dejectedly.

"I remember about the unexplained mystery of the space flyer, the 'Antarian,'" said Bret Sorelle, reminiscently. "It seems that this Garn Deblette with two companions, boarded his space flyer for a week-end cruise to Venus, which would include a circumnavigation of the planet. The only solution of the sudden disappearance of the 'Antarian' which could have been plausible, and sounded so, was to the effect that Deblette, in his circumnavigation of Venus, had lost control of his ship, and, with a dead broadcaster, with which it had been impossible to summon help, had been drawn into the sun."

"He never even reached Venus," said Quenden, nodding his head towards the 'Antarian' which silently attested to the manner of Deblette's fate along with his two companions. "When his space flyer passed the vicinity of the earth's orbit, he was captured by the moon pirates just as we were."

"A most excellent surmise!" came the startling affirmation from behind the group of captives who were intent upon the bevy of looted space ships which had fallen prey to the buccaneers of space.

The faces of all turned quickly at the sound of the voice to find Carconte regarding them with amusement.

"And now my guests," he mimicked, "the voyage is ended, and I beg of you to enter my humble domicile."

A guffaw of coarse laughter greeted this buffoonry of the pirate leader as the rows of villainous faces which peered in at the corridor entrance received this sally of their chieftain.

"Jezzan, you and Bender act as a guard of honor for these, our guests," indicated Carconte, to a pair of trusty villains who were nearest him; the pirate continued the exaggerated politeness which had so amused his cohorts.

The two pirates designated by Carconte led the melancholy group of prisoners from the space ship out into the cavern of the subterranean moon chambers, and following, came the rest of the motley crew of space brigands led by Carconte. Hulan was not in evidence, having remained within the space ship on some reason or other.

From the underground hangar of the moon buccaneers, the captives were led into the rendezvous of the pirates to the grand central room. When they had all entered, Carconte addressed the ill fortuned group of five.

"You are going to be kept together in a cell until to-night, according to earth time of the western hemisphere, when you shall be judged, and your various fates determined. At our meeting, we shall decide what shall be done with each of you."

The pirate chief allowed his eyes to rest hungrily upon the shapely form of Suzette Clarkford who instinctively shrank back into the protecting arms of her father. Jan Trenton stepped before the girl, shutting her loveliness from the pirate chief. The young astronaut's eyes bored back into those of the evil, bald headed Carconte. The pirate leader scowled menacingly at this display of valorous defiance on the part of these helpless playthings of fate, whose several destinies had converged to bring them here together within the merciless clutches of these twenty sixth century pirates. The scowl upon Carconte's unlovely visage turned to one of contemptuous amusement, as the humor of the situation struck him.

"Until to-night, then," said Carconte, as he motioned for the pirates to take the five captives to their temporary confinement.

The two pirates, Bender and Jezzan, led the way. Three more of the space buccaneers followed them. Through a long, winding corridor they were led, and then they entered upon a square room with gray, gloomy walls which were illuminated by means of a preparation which had been applied to the surface. It was a dim, somber light which spread its gray, melancholy glow upon the cold walls of the chamber in the moon's interior. Bringing them here, the pirates left them to the silence of the place whose sepulchral drabness lent it an air of oppressiveness, reminding one of the tomb.

"What a terrible room!" shuddered the girl.

"It isn't very cheerful," agreed Sorelle, glancing around at the bare walls of the dimly lit moon chamber.

"Are they going to leave us unguarded?" queried Clarkford, motioning to the open doorway through which the moon pirates had vanished.

"Probably they know we can't get out, or they would have posted a man nearby," observed Quenden.

"Perhaps we are watched by television," suggested Trenton. "I have an uncanny, restless feeling that there are unseen eyes looking at us."

"What was that noise?" whispered Clarkford, the room echoing to his sibilant intonations.

"The floor is shaking!" announced Quenden.

"It is sinking!" shouted Sorelle in alarm.

As the five gazed around in surprise and bewilderment at the walls and doorway which were gradually sliding upward out of sight, they saw that Sorelle was indeed correct in his assertions that the floor was sinking. About forty feet

below its original level the floor of the rocky chamber halted its descent and came to rest.

"What was that for, I wonder?" asked Sorelle.

"It makes an ideal prison," observed Jan Trenton, pointing to the doorway far above their heads. "That is the reason why they omitted the details of leaving a guard for us; it wasn't necessary."

"And when they want us again," offered Quenden, "all they will have to do is to elevate the floor of this chamber once more."

"Exactly," agreed Sorelle.

* * *

A group of men sat in excited conference in an office of a towering, twenty sixth century skyscraper of New York City. From out of the windows of this office, which was located some hundred and twenty stories above the street, could be seen the thriving heart of the great metropolitan city.

Down in the far off street below, one could perceive the tiny dots, pedestrians, going about their business. No surface vehicles were in evidence, being confined to the subway levels. The air, however, was full of planes, airships and interplanetary flyers which plied at various altitudes, according to their types and business. Numerous landing stages were in evidence in supplement to the five upper levels of all the buildings which were reserved for both air craft and space flyers, the various types being segregated to certain levels. Along near the fifty story level of the skyscrapers, where the lowest landing stages were located, a network of narrow bridges which supported municipal radium cars, the public conveyances for the twenty-sixth century New York population, connected the skyscrapers.

Within the office, completely oblivious to the throb of life outside, four men sat in conference, stern faces obsessed with the problem at hand.

"The report from Mars brings the information that the 'Interplanetary Limited' is overdue, and has not been heard from, and that nowhere can it be seen in space, its entire route having been examined by the telescopes!"

"What do the Venerians say?" queried another.

"That the space ship left Venus at the regular time bound for Mars with a half billion in gold, platinum and diamonds, and carried a passenger list of five, beside the usual crew of eight."

"It was an express, was it not?"

"It was."

"Then what business had the passengers upon it?"

"There were five people, four men and a girl, who were all vouched for by the Venerian authorities at Deliphon. Had they not taken this express, they would have found it necessary to have waited two days for the next 'Passenger Limited' to Mars, and none of the five cared to wait that long. There were others who wished to take the express but were denied passage, due to the fact that they had no one to vouch for them."

"And what are we to do?"

"What do you suppose we are to do? We must begin a search at once."

"In view of the immense fortune aboard, do you believe there is any chances that a conspiracy of the crew of passengers has arisen?"

"I do not know," replied the first speaker. "The fortune in precious metals and gems points to that, but on the other hand during the last three or four years there have been other mysterious disappearances of space craft, such as the 'Antarian'."

"And the 'Prestol'," added another of the four.

"Both of which were supposed to have

gone out of control and to have been drawn into the sun."

"Presumably."

"Why do you say that?"

"Because, do you not think it rather queer, that is, beyond the possibility of coincidence, that every one of these missing craft, should disappear without radioing one of the planets of their distress?"

"That is true."

"Of course, in these past disappearances there have been attempts to solve the mystery of how these space flyers all disappeared with dead radios—there is the flaw—but previously, all efforts have proved futile. This time, we must not give up until we know what has become of the 'Space Limited'."

"Isn't it possible that the 'Limited' might have been destroyed by some large meteor? That would preclude the possibilities of its sending a radio message."

"If that is so like the cases of the 'Graphand' and the 'Ustal,' who were destroyed by meteors through a failure of their repellor rays to function properly, we shall find wreckage of the ship somewhere. But in these past disappearances, no wreckage has been found."

"Suppose the crew or passengers had connived to rob the ship, where could they go? There would be no refuge for them on any of the three worlds."

"True enough."

"What are we to do?"

"Investigation is now under way. The telescopes are examining the route between Mars and Venus, while astronauts are being sent out in their space flyers to find some trace of the missing ship. All we can do now is to wait for the result of the investigation."

* * *

Within the depths of the earth's satellite, the five captives of the moon pirates awaited the hour of judgment. To their imaginations, their future was not to be a pleasant one. So for hours they waited in the oppressive silence of the gray somber tomb, until they should be called upon to hear their respective fates officially meted out to them, though they had already guessed what disposal to expect at the hands of the pirates. Sleep had overcome the girl, mercifully sparing her a few agonized hours of mortal suspense. The four men sat in dejected silence, intent upon their own personal retrospections, occasionally passing a word. The long hours rolled by, suddenly a vibration shook the floor, awakening the girl whose head lay pillowed in the lap of her father. She sat up with a start, her confused mind abruptly aroused from sleep, unable for the moment to fully reconstruct the series of events leading up to the present situation in which the five now found themselves.

"What was that, daddy?" she asked looking up into the grave, haggard countenance of her father.

"The floor is beginning to rise!" replied Jan Trenton." "We are about to be released from this dungeon to see what Carconte has decided to do with us!"

Slowly the floor rose once more until it came upon a level with the doorway. As they had expected, several of the moon pirates were there to escort them into the presence of the pirate chief.

"Come," said one of the space brigands, "we await your reception into our council room."

The monotonous oratory of the man bespoke the fact that he had repeated this particular passage many times before. The man led the way, the five captives following. Behind them came three more of the moon pirates who brought up the rear of the procession. They traversed a series of corridors and halls, up stairways and around bends in

the numerous passages in the labyrinth of the moon chambers, the four pirates finally bringing them to a stop before a pair of high, massive doors which were closed.

The doors opened slightly, allowing a red, lurid glow to pass through the narrow crack, and then swinging aside noiselessly, the avenue was opened up before them. Complete silence reigned within the high domed chamber as the five captives were ushered within.

CHAPTER VII

The Chamber of Moving Skeletons

A HORRIBLE sight met their eyes! Grouped about the sides of the chamber, sitting or else standing upon the elevated dais which encircled the long room, where as many as fifty or more human skeletons! In life-like postures, they were arranged about the sides of the chamber, and the vacant, sightless skulls semed as if focused upon the awe-stricken group of prisoners from the "Interplanetary Limited," glaring at them menacingly! At the far end, upon a dais, a skeleton sat alone away from the rest, apparently the overlord of this grisly crew.

A vibrant scream shattered the oppressive silence which hung like a dismal mantle of gloom over the death chamber with its sepulchral company! Again the piercing scream split the awful quietude of the horrid room, as the girl pointed with shaking finger at one of the skeletons!

"By all the suns of the Universe," exclaimed Sorelle, "it's moving!"

And in truth it was. The grim portender of death, moved its skull slightly sideways, while a bony arm with claw-like hands reached for a cord and pulled it! A tinkling bell sounded, and heralded a startling effect. Every skeleton which was sitting down arose to its feet, while those, which had already assumed standing posture, turned their gaze from the prisoners to the solitary skeleton upon the raised dais at the room's end, the hollow sockets of the white skulls all directed upon this one skeleton. A shudder ran through the group of prisoners as the grinning jaws of a near-by member of the terrible crew opened and closed with a snapping click! What a terrible scene this was—one to shatter the nerves of the bravest with its uncanny potentialities!

"What makes them capable of movement?" whispered Quenden to Trenton.

"No conversation!" came the dismal admonishment of the lone skeleton at the far end of the room, pointing an accusing finger at the group.

To the young astronaut the voice sounded strangely familiar. Where had he heard it before? The skeleton's jaw commenced moving once more as he intoned the following announcement.

"You are in the Council Room of Death and will soon receive the judgment of the moon pirates!"

The five captives stared fascinatedly at the grisly array of skeletons who had relaxed from their silence, and now sighs, coughs and whispers were heard from the ranks of the bony caricatures. Jan Trenton now recognized the voice; it was that of Carconte! He wondered how the pirate leader could speak through the medium of the skeleton so easily in synchronization with the movements of the thing, especially of the jaws.

The dull red hue of the room changed gradually to a blue color, and above the head of the lone skeleton there shone a full moon upon whose silvery surface lay silhouetted in black lines a skull and cross bones.

Scarcely had the red glow of the chamber resolved itself into a blue color, when a mysterious change began to

creep over the skeletons! Dim, vague, shadowy outlines commenced to enshroud the bones and the grisly crew began to disappear from view, fading into something as yet intangible which was attempting to manifest itself. The dim shadows prevailed over the bony structures of the skeletons and before the wide distended eyes of the five prisoners there appeared the living bodies of the moon pirates, standing in the exact positions previously occupied by the skeletons!

Then the truth struck the little group suddenly as they realized that by a clever lighting system of mysterious powers, the flesh and clothing surrounding the skeletons of the moon pirates had been rendered invisible, producing the weird effect they had just witnessed.

The lone figure at the far end of the room was Carconte, whose face grinned in evil anticipation at them, while ranged around the sides of the room were the rest of the pirates. The aluminum-capped Hulan was not in sight.

"Before we announce our decision concerning the fate of you five, we have a few matters to which we shall attend first," said Carconte. "Take seats and look on."

The pirates who had escorted them to the council chamber, and who had stood behind them during the amazing scene and transition they had witnessed, now led them to a row of seats at the rear of the chamber.

"We have first of all a member of our ranks who is to meet punishment and death!" cried Carconte loudly. "He is a traitor who attempted to steal a large quantity of our gains and desert us. He was caught in the very act of transporting the booty from our treasure room to the space flyer in which he had intended reaching Mars! His perfidy, and subsequent fate which you are about to see enacted before your eyes will teach you all an object lesson! Following the terrible penalty we mete out to traitors, there is one within our ranks, who has honestly strived to benefit our organization and who has succeeded in accomplishing his illustrious purpose. As a contrasting example, he shall be rewarded."

As if awaiting the termination of his speech, two sections of the floor slid aside, and up through the cavity within the center of the chamber there arose a platform containing two men and an array of intricate apparatus. It took but a single glance to recognize Nez Hulan, the human robot, who stood at the side of one of the machines. Fastened to a steel column by means of a metal girdle around his waist was a man none of the captives had ever seen before. Evidently he was the traitorous moon pirate.

"You are about to die!" spoke Carconte pointing a denunciatory finger at the abject figure of the moon pirate. He slumped forward in the iron girdle in melancholy resignation to his impending fate. "But before you die, the manner of your passing is to be exemplified in the presence of our entire organization, so that never shall there occur a repetition of your act! Hereafter, a member of our band will think twice before yielding to temptation! I now turn you over to Hulan who shall see that you receive fit punishment. What he has in store for you, I do not know, but that we shall all enjoy it, I am sure!"

"I shall first of all remove the man's sanity," rasped Hulan, his metal head and steel limbs glittering in the light. "Watch it go."

The cruel machine man placed a round metal cap down over the victim's head, and then directed the terminal of one of his machines toward the man. A strange flickering of dark shadows engulfed the platform on which

the two men and scientific apparatus was placed, making the scene within the center of the council room appear like a shady vision of unreality. From out of the dark haze surrounding the apparatus there stood out in dim relief the pale countenance of Hulan with its cruel, merciless, supercilious smile. The shadowy form of the moon pirate could hardly be distinguished from the other objects until presently the flickering ceased, the dark haze dissipating itself into dissolution. The scene became clear before the interested eyes of some fifty or sixty moon pirates, as well as those of the five captives, who were gripped in a horrid, hypnotic fascination.

The form of the moon pirate writhed and squirmed, attempting to escape the confines of the girdle while, upon the lips of the unfortunate buccaneer, there arose an incoherent sound such as an animal might make, the torment of the man manifesting itself in the repugnant mouthings and terrible grimaces he made. Vainly he tried to free himself of the retaining girdle which bound him to the steel shaft, his arms clawing futilely at its encircling embrace. Hulan looked on in amused contempt. The man with the rubber heart directed a tiny, fine needle point ray of light upon the luckless moon pirate, and now the man's attempts to release himself from the steel girdle were frantic, while his raving rose to a dismal howl of mingled pain, terror and anguish.

The five prisoners shut their eyes against the disgusting sight. But they could not shut out the unearthly sounds made by the maniac. Presently the sounds of the man were silenced, and when they looked again it was to see the drooping form of the moon pirate bent forward in lifeless attitude.

"Is he dead?" asked Clarkford in a low whisper, unable to maintain his silence any longer.

"I don't know." replied Trenton. "That devilish ray did something to him!"

"It is horrible!" shuddered the girl. "Oh, what beasts they are!"

"He isn't dead yet!" exclaimed Sorelle. "See—he is moving!"

The tortured man stirred vaguely, and passed a hand over his forehead. Hulan spoke again.

"The man's sanity having been satisfactorily removed, I shall now illustrate to you what would happen if your bones should suddenly soften and become liquid."

The mechanical-limbed man turned to a machine which arose above his head, and directed its luminous, ghostly rays upon the body of the doomed man who had lapsed into a stupor. Nothing happened until the light faded away, and then a perceptible, restless movement of the man's body became noticeable.

"The rays of light which are now turned upon the subject," stated the hard, cold voice of the aluminum headed wizard, "are invisible to your eyes due to the fact that their vibrations are of such high periodicity as to be beyond the reach of optical perception. I first discovered their powers when I experimented upon Professor Cimm at Fomar. He was unaware of the experiment until it was all over, and then he never knew what had happened to him."

The body no longer stirred. Was he dead? Hulan's next act answered that question which was now predominant in the minds of all those who were watching.

"He appears to be dead, but he isn't. His mentality has been destroyed and the dissolution of his bones have rendered him incapable of any articulation —also of movement to a certain extent —but watch!"

Again the tiny finger of light played over the moon pirate whose treachery

had met this fate. Wherever the ray of light settled, there arose a quivering.

"This tiny light is the most excellent medium of torture ever invented by man", said Hulan. "Seven hundred years ago such pirates as Morgan, Kidd, L'Ollonais and Lafitte believed themselves to be proficient in the art of torture, but their results were mere child's play beside those brought about by this tiny finger of light. Even the ancient inquisition with its alleged horrors, are as nothing compared to what you have witnessed! I have even surpassed the dreaded Durna Rangue cult which sprang up and died upon Mars over a hundred years ago when the earthly colonies to that planet were young and the cult fled the earth to escape prosecution. And now for the final act!"

The arch demon, half man and half machine, who had lain dead and mutilated within the depths of space, now picked up a long rod whose end terminated in a broad, hollow snout.

The pirate mastermind turned the terrible ray of yellow light upon what was left of the moon pirate who had essayed to desert the ranks of the lunar buccaneers, taking with him a large share of treasure. The remains of the body rapidly disappeared. Where the man had previously stood there now existed nothing.

"Let that be a lesson!" warned Carconte who had been greatly impressed by the display of inhuman cruelty derived from the perverted intellect of Nez Hulan.

The five captives were a bit unnerved by the insidious spectacle they had been forced to watch. Centuries before, on the seas of the earth, there had been pirates who robbed, killed and tortured, but in cruelty they did not compare with the moon pirates.

"Take your apparatus away, Hulan," ordered Carconte. "We have now to bestow upon the head of a true comrade the reward of a special service to us."

Slowly the platform sank beneath the floor once more, bearing the cruel, pale-countenanced Hulan and his weird, devilish contrivances out of sight. Just before his head disappeared below the floor level, the group of five shuddered as they met his sneering gaze eyeing them malevolently. The floor closed together above the cavity into which the platform had descended.

"Portho Zind!" announced Carconte in a loud voice.

The man, known previously to the passengers of the interplanetary limited as Balfour, stepped forward from the sidelines of the pirates, and faced his superior.

"As a reward for your information from Deliphon in regards to the 'Interplanetary Limited' we have just captured, you are to be elevated in position among us, and your quarter moon is to be replaced by the full moon itself," said Carconte.

There ensued a repetition of the occurrence which had taken place upon the "Jolly Roger" when Brentley and his two comrades had received the crescents of the moon pirates, except that this time it was Zind who had a full moon indelibly stamped over that of the quarter moon. There existed but one symbol higher than the full moon, and that was a full moon surrounded by a red circle. Only two of the pirates boasted these. Carconte wore one on his right forearm, while Hulan who had no arm through which to implant the moon's outline along with its skull and cross bones, had the insignia of the moon pirates upon his chest, just above the spot where a long white scar marked the removal of the punctured heart. The group of five prisoners from the "Interplanetary Limited" paid little attention to the proceedings, being absorbed in

the contemplation of their own impending fates which were to be discussed immediately.

Zind received his full moon, the height of recognition in the ranks of the moon pirates, which would accord him a marked preference over his brothers who bore only the crescent or quarter moon, and assured him a larger share of the spoils and booty which fell in their way.

"And now," quoth Carconte, as if in afterthought, "we have with us five guests who I hope have enjoyed our little entertainment. Three of them are to become members of our band, I hope, and our friend Hulan wishes the fourth one for his experiments. Doubtless he may wish to put on another little show of some kind like the one we witnessed just now. The woman is to be mine!"

With the last words, Carconte stood at full height, folded his arms across his chest, and with bald head gleaming in the light of the chamber, paused emphatically. Sorelle appeared the least perturbed of the group. Upon the face of John Trenton, there lay a look of intense hatred as he eyed the arrogant pirate chieftain, his fingers clenching and unclenching, eager to be at the throat of the pirate leader. Clarkford's face reflected both anger and terror, for he had not forgotten the outlines of the experiments which Hulan had explained to Professor Crayton. Crayton was to have been the one experimented upon. Now that Crayton had gone and committed suicide, it would be Clarkford. Quenden's face bore a desperate look which had been born of both loathing and anger at the scene he had witnessed, for it was *farthest* from his desires to go under the knife at the hands of Hulan, and he would take the same stand as Trenton in his refusal to join the moon pirates as Bentley and his two companions had taken.

"Are you three men ready to become moon pirates?" queried Carconte of Trenton, Sorelle and Quenden.

"No!" replied Quenden.

"Never!" was the ultimatum of Jan Trenton.

"When hell freezes over!" was Sorelle's promise.

"I see that Hulan has a little work to do on you men before you are willing," said Carconte, disregarding the stinging insult Sorelle had applied to the villainous crowd. "It would be more sensible to yield now, for I cannot promise that Hulan will make the operation painless, and if anything should happen that the *experiment* failed, it would mean the disintegrator gun, and a ride into space, or else death under the disintegrator beams.

The three men remained silent.

"And what do you say to becoming the woman of Carconte, my pretty one?" queried the pirate leader, attempting a coquettish gesture which made him appear the more hideous.

"I much prefer the disintegrator gun!" replied the girl, "but if you will spare my father and these other brave men, letting them go, I shall yield to you willingly!"

"Oh, will you?" smirked the evil Carconte, evidently stung by the girl's words which had upset his pride and dignity in the presence of his men. "And suppose you don't come willingly —what then? Merely this—Carconte will have the pleasure of breaking you to his will, and shall give to your father and his three companions horrible deaths, slow, painful, drawn out hours of agonized torture! Hulan will be delighted; he never tires of such sport!"

The girl broke down and sobbed, her father and the young astronaut springing forward simultaneously to support her swaying form and comfort her. The whole effort upon the girl's part to save

her father from the terrors of the experiment, and to release the others from becoming moon pirates at the hands of Hulan, had amounted to naught.

"Let your four companions go!" mimicked the pirate leader. "So that they could bring a swarm of space craft down about our heads from the three worlds! Do you think I am a fool?"

"I know you are," said Clarkford bitingly, "to even think that any one of us would allow my daughter to desecrate herself by voluntarily becoming a pawn for our freedom!"

"I'll give you your reply when Hulan has your head cut off from that mangey body of yours," retorted Carconte angrily. "You'll still be able to hear and understand what I am saying!"

"You can draw and quarter me if you wish, but spare my daughter," pleaded Clarkford, tears moistening his eyes. "I have given you my bonds, and offered you my life. What else is there to take?"

"Nothing!" rasped an unpleasant voice in the rear of the group. "Nothing that we cannot take if it is our wish!"

Turning at sound of the voice, the five prisoners gazed into the face of Hulan, the human robot, whose steel arm pointed like the finger of doom at Clarkford.

"You will not be drawn and quartered," said the machine man in icy tones. "I have other plans for you, and I do not want your life. I want your body. You will not be killed, though before we are through, you shall beg for somebody to kill you!"

The blood of the five captives from the space ship limited ran cold with the horror of Hulan's veiled suggestions.

"You — you — you villain!" swore Clarkford vehemently, realizing that all the threats, promises and entreaties in three worlds would not change the intentions of this man of blood and iron.

"Come," said Hulan, placing a steel hand heavily upon the shoulder of the condemned man, "you are mine—part of my share of the spoils from the 'Limited.' I have you; Carconte has your daughter, although if I had her she would die, for women are trouble to such as we. The other three men go to the pirate crew, and everyone is satisfied as far as our hostages are concerned. Get along with you, fast!"

Hulan's steel fingers bit into the shoulder of Clarkford so hard that the condemned man nearly screamed with pain, and then his daughter was upon the mechanical man, clawing and kicking him with the fury of a tigress. An annoyed look spread across Hulan's face, and with the other arm, he reached forward and clutched her white neck in a grip of steel which threatened to sever her jugular vein.

This was the signal for an infuriated young astronaut to hurl himself upon the metal-limbed moon pirate, and with a well directed blow, smash the scientific master-mind in the face so hard that he lost his hold upon the two captives and stumbled backward. In a cold fury of unreasoning hate, he caught Jan Trenton in a vise-like embrace with his steel arms, and would have crushed the ribs of the young astronaut had not Quenden and Sorelle sprang forward to his assistance. By this time, the moon pirates were pouring from their stations along the side of the chamber and were milling about the combatants, striving to separate them.

Above the noise of the mêlée there roared the voice of Carconte, yelling and threatening for order.

"Stop!" he commanded in a loud voice. "Get back to your positions!"

Angrily, the pirate chief strode down the length of the council chamber as his men hurried discreetly back to their

places once more in compliance with his order. With furious mien he confronted Hulan.

"Leave your dirty, iron fingers off from my woman!" he roared, pointing at the black marks which were beginning to appear upon the neck of Suzette. "If you harm her, I'll break every cog and wheel in those legs and arms of yours, and have that rubber heart out of you into the bargain! Take your man, but don't touch any of the others; they are not yours."

Hulan did as he was bid, humbly accepting the abuse in silence. Though Hulan was by far the intellectual superior of Carconte and the rest of the pirates, being the mastermind of them all, he lacked the leadership and backbone which made Carconte the pirate chieftain. Hulan was at heart a coward. The men all feared him, and looked upon him with awe, but they never held the respect for him, that they did for Carconte, and had it not been for the leader, Hulan would have met his doom long before this.

"Take these men away!" ordered Carconte to several of the moon pirates. "Our meeting is over. Leave the woman here—she is mine, and I shall attend to her later!"

As Hulan disappeared with Clarkford, he mumbled something under his breath, a cold hard look mantling his deathly white features. Had anyone been close enough to have overheard his muttered comment, they would have gathered enough from his words to understand that already the woman had made trouble among them.

"To-morrow," promised the pirate leader, addressing the three men, "you will be interviewed again, and if your answer is still the same, it will be necessary for Hulan to operate upon your brains."

As they were escorted out of the council chamber, Jan Trenton cast a last look upon Suzette Clarkford, a look in which there was a world of meaning, and in his eyes were the parting instructions which her mind intuitively guessed: that she was not to forget the radium pill he had given to her, but to forbear using it until the final moment, when it seemed that the last vestige of hope had dwindled away.

"Hurry along!" snapped the pirate behind the young astronaut, giving him a shove through the great doorway leading into the council chamber.

CHAPTER VIII

"I'll Get Hulan for You!"

ONCE more the three men were led through the maze of corridors and rooms which constituted the underground chambers of the moon pirates. This time they were led to more spacious quarters consisting of not only one room but several, and upon entering they immediately fell to exploring them while they discussed their situation.

"It looks as if we are here to stay," remarked Sorelle.

"We have until to-morrow to decide," said Quenden, "and as far as I can see we are going to be moon pirates eventually either way we decide.

"They'll have to operate upon my brain, and remove my conscience first of all," stated Jan Trenton.

"I sure would hate to be Clarkford now," spoke Quenden, shaking his head ruefully. "That Hulan seemed eager to get his hands on him and to begin the experiment."

"Not much worse than the fate of the girl," observed Sorelle.

"There is an escape for her," said the young astronaut.

"An escape—what do you mean?"

"Death!"

"Death?"

"Yes."

"How?"

Then the pilot of the interplanetary limited explained how he had given the fatal radium pill to the girl.

"Too bad you didn't have one for her father," observed Sorelle. "He would have appreciated it."

"Perhaps he shall have such an opportunity as was offered Crayton," suggested Quenden cryptically.

"I doubt it," said Trenton. "Hulan will be watching him close to see that he doesn't lose another subject by suicide."

"Not bad quarters, eh?" remarked Sorelle, taking in the four chambers of their elaborate prison with a wave of his hand.

The four rooms were furnished with comfortable lounges and expensive fittings as well as numerous conveniences and luxuries which the three men were surprised to find in this subterranean recluse of the moon pirates.

"They pilfered all this from the space ships which they captured," said the astronaut as the three men walked through the four rooms for a closer examination. Their initial investigation had been more or less cursory.

"No chance for escape here," said Quenden. "The door is closed behind us by means of a great sheet of metal, which slides down from above the doorway, and evidently the last room is a blind alley because there are no more doors opening out from it."

A grating noise came from behind them.

"They're raising the door!" announced Sorelle.

"And closing it again," added Trenton as with a rattling sound the door slid back into place.

The three captives hurried into the main room. There upon the floor just inside the door was a large quantity of food.

"They're not going to starve us, anyway," commented Sorelle as he fell to eating.

The three were hungry, though in the excitement of the preceding events they had not been aware of it, and soon they had cleared up the victuals brought them by the moon pirates.

"You don't suppose Hulan has put any poison in this food we have eaten, do you?"asked Quenden.

"A fine time to bring that up," remarked Sorelle, eyeing Quenden critically.

"Well, I didn't want to spoil your appetite."

"If they were bent on killing us, Hulan would insist upon a more scientifically cruel manner," said Trenton.

"I'm sleepy," yawned Sorelle.

"So am I," said Quenden.

"We might as well sleep," advised Sorelle. "No one knows but what we shall need all the rest we can get before this affair is through."

Quenden and Bret Sorelle curled up in comfortable positions on the lounges and soon were in deep sleep. Jan Trenton was sleepless. He sat lost in gloomy meditation regarding the fate which had fallen to the lot of the five prisoners. He was especially worried over Suzette Clarkford. Carconte had taken her. What had happened? Had she been forced to swallow the radium pill yet? If so, she must be dead/. He wondered. For several long hours he sat there.

He became restless, and tired of sitting in one spot. The astronaut wished he might get some sleep, and envied his two companions, but his troubled mind would not allow him to sleep. He arose and walked about the four chambers examining the contents of the rooms. A draped hanging upon the wall close to the ceiling piqued his curiosity and he

stood upon a large chair to examine it, leaning his hand against the wall. As he did so, a large section of the wall yawned open before him. That portion beneath his hand sank backward so rapidly that he lost his balance upon the chair and tumbled to the floor with a crash, overturning the ponderous piece of furniture.

Sitting upon the floor where he had fallen, Jan Trenton gazed mystified at the wall where the stone-work had given way before him, precipitating him to the floor. The opening was no longer there; only the blank wall stared back at him. Once more the young astronaut climbed upon the chair, and gingerly pressed upon the same spot in the wall he had previously leaned against.

Slowly, the section of wall, large enough for a man to enter, swung aside, disclosing to the eager eyes of the astronaut a secret tunnel. The astronaut put a foot inside, and then hesitated. Should he enter without notifying his two fellow prisoners? What unknown perils lay before him—suppose he should not return, and they should awake to find him gone? Gradually he came to reconsider his intentions, and withdrew his foot and hand, allowing the wall to swing back into place once more.

Going back into first of the four rooms, he awakened Sorelle and Quenden.

"Are they here for us!" asked Quenden, sitting up suddenly as Trenton shook him, after having brought Sorelle to his senses.

"Come, you two. I've just found something I want to show you!" exclaimed the young astronaut excitedly.

Together, the three men hurried to the fourth and last room of their apartments to where the astronaut had discovered the secret tunnel. Standing upon the chair, the pilot of the "Interplanetary Limited" depressed the section of wall which slid silently backward to reveal the opening of the concealed passage.

"A secret room!" ejaculated Sorelle.

"No, a tunnel," corrected Jan Trenton who was craning his neck to see farther within the dimly lit confines of the secret annex to their apartment.

"Where does it lead?" asked Quenden.

"That's what we're going to find out!" said Trenton.

"No sooner said than done!" exclaimed Sorelle in whom immediate action was characteristic.

"Wait!" remonstrated the young astronaut. "Shall we all go?"

"Why not?" asked Sorelle.

"Suppose the moon pirates find us gone?"

"All the better," chuckled the adventurer. "It will give them something to scratch their heads over!"

"Good! Let's go!"

The three men hastily piled into the narrow tunnel, the wall swinging back into place behind them. Cautiously they made their way along the passage, wondering where it led.

"Do you notice how thick and undisturbed the dust is where it has settled?" queried Jan Trenton in a whisper.

"Yes," replied Quenden. "It gets into my nose, and it is all I can do to keep from sneezing."

"Do you know what that means?" asked Trenton.

"What?—My sneezing or the dust?" asked Quenden.

"The dust," replied the astronaut. "It suggests the fact that the moon pirates are unaware of this hidden passage's existence! They won't know where to look for us! This layer of dust is the accumulation of many years, and it has lain here undisturbed through the fact that the moon pirates never come into this secret tunnel!"

"Then we have escaped from them!" exclaimed Quenden.

"For the time being," replied Trenton.

"Let's see where it will take us," said Sorelle, leading the way onward through the passage whose rocky floor lay coated with the dust.

Finally, the three men reached the end of the long tunnel, which it would seem had led them several hundred feet away from their prison quarters.

"Another secret door!" echoed Sorelle in a hoarse whisper, as he pointed to the extremity of the tunnel.

"Sh-h-h!" remonstrated Trenton, holding up a finger to his lips for silence. "I hear voices!"

And sure eough, from beyond the secret wall panel there came the sound of voices in conversation. The three prisoners of the moon pirates leaned up against the panel, and listened eagerly.

"Some of the pirates!" whispered Sorelle as he caught the gist of their conversation.

"What are they talking about?" asked Quenden.

"I can't quite make out," replied Bret Sorelle, "but from the sound of the voices I should say there were three or four of them in there."

Presently the voices died down and dwindled away.

"They have gone," said Quenden.

"Let's go in," suggested Trenton.

"Sure," replied Sorelle. "If you think it safe to take a chance."

"We'll try it," said the young astronaut as he pulled upon the panelling which separated the secret tunnel and the next room.

"Go carefully," admonished Quenden.

Slowly, Jan Trenton drew the section of wall inward and the three gazed into the room, temporarily devoid of human presence.

"Look!" directed the astronaut, his eyes glistening as he pointed out to his companions several objects which lay upon the table in the room.

"Atom pistols!" ejaculated Sorelle.

With a light, catlike bound, Jan Trenton had leaped down from the opening and was followed by Sorelle and Quenden, the three captives seizing the coveted weapons.

"Now I feel better!" said Trenton.

"A-ha-a!" grinned Sorelle as he clutched one of the guns in his right hand. "This is more like it! Now maybe we'll have something to say about whether or not we become moon pirates!"

All three were delighted at their good fortune and did not notice the sound of approaching footsteps, until there appeared in the doorway leading from the chamber one of the moon pirates whose startled eyes took in the scene before him. His hands leaped to the atom pistol at his side, but Quenden, who was the first to see him, beat him to the draw, already having the pistol in his hand, and with a muffled gasp the pirate sank to the floor.

"That's for Bronson!" said Quenden, mentioning the name of one of his dead comrades who had been shot from the large atom gun aboard the 'Jolly Roger.' "We have got one of the scoundrels to our credit, anyway!"

"We have one desperate chance in our power!" exclaimed the young astronaut excitedly. "We must fight our way to a broadcaster, and radio the earth for help!"

"Good enough!" agreed Sorelle, enthusiastically. "It is our one chance, and we must lose no time!"

With atom guns clutched firmly in their hands, the three desperate men proceeded stealthily along the corridor leading from the room they had just quitted.

"Wait a minute!" said Trenton. "We

had better put that fellow you just killed out of sight. More can be accomplished by strategy than by a show of arms."

"Put him in the secret tunnel!" suggested Quenden.

The three hastily reentered the room, and taking the body of the moon pirate, they placed it just inside the secret passage, and closed the door.

"That takes care of him!" said the young astronaut as the three proceeded on their way once more.

"Have you any idea where we are going?" queried Sorelle.

"No," replied Trenton. "We shall just have to trust to luck."

From the bend ahead, they heard footsteps approaching.

"The pirates!" exclaimed Sorelle. "Shall we drill them?"

"There's too many from the sound!" said Trenton. "We had better hide and let them go past, or the noise will bring the whole crowd down around our ears!"

"In here!" hissed Quenden, motioning them to a small room leading off the corridor. "Quick!"

They ducked out of sight just in time before several of the pirates appeared around the bend. Hulan the human robot, was among them.

"A close shave!" commented Sorelle,

"Or a gun duel!" added Trenton. "I wish I knew where they kept their broadcaster. They must have one somewhere!"

The three members of the 'Interplanetary Limited,' who had fallen into the evil hands of the space buccaneers, continued their way, turning the bend in the passage, and heading rapidly for a room at the far end. On tiptoe, they approached the doorway of the chamber, and soon they heard voices.

"Well, how do you feel now?" spoke a smooth, oily voice which tickled their memory with its peculiar *enunciation.*

"You must admit that Hulan is a genius."

"He is a devil!" came the weak reply. "Oh! put me out of my misery, I implore you!"

Then followed a groan of pain and anguish as only the damned in hell might emit, followed by a harsh, wicked laugh.

"Kill me! Kill me!" continued the weak voice in pleading accents.

"Clarkford!" exclaimed Trenton *as* he heard the tortured accents of the man for the second time.

"And the other one sounds like Balfour," said Quenden.

"You mean Zind!" corrected Sorelle. "There's no one else in there from what I can hear—let's rescue Clarkford!"

The three broke into the room, atom pistols ready for immediate use.

Confronting them was the most horrible scene they had ever witnessed, or would ever be called upon to see, a scene which was to be stamped vividly upon their memory in graphic detail for the remainder of their lives!

Unwittingly they had stumbled upon the laboratory of Nez Hulan, and before their eyes lay a most terrible, unnerving spectacle of such hideous character as civilized man is seldom called upon to witness! Upon a supporting standard above a complicated array of attached tubes, wires and other intricate apparatus the decapitated head of J. C. Clarkford rested! An expression of intense pain and horror lay upon his countenance! A short distance from the head, across the room and facing it, was the body of the man whose arms and legs still moved at the commands of the brain which was hooked up in communication with the head by the system of tubes and wires which ran from the apparatus surrounding the head to the various portions of the body!

Standing before the gruesome handi-

work of the inhuman genius of Hulan, stood Zind, apparently enjoying the horrifying scene. The dark-skinned pirate turned from his pleasure of taunting the head as he heard the entrance of the three men from the 'Space Limited' who had been taken captives by the murderous crew, an ugly scowl spreading over his features at the sight of them. The horror of the thing struck Trenton, Sorelle and Quenden dumb for the brief moment in which Zind was overcome by their sudden, unexpected appearance. Even the head stared in surprise.

"What are you doing here?" growled Zind, his dark face glaring in evil hatred at them as his hand slowly crept to the suspicious bulge of a gun butt at his side.

"Take your hand away from that atom pistol, or you'll never know!" snapped the astronaut, covering the olive skinned spy of the moon pirates with the menacing muzzle of his gun. "Now tell us where there is a broadcaster, or we'll shoot you so full of holes you can pass for the proverbial Swiss cheese of yore!"

"You'll die for this!" hissed Zind, his lips curling in a sneer, "A long, slow death under the tiny ray!"

"Shut up, you dirty dog!" came the sharp command from Sorelle who approached and shoved his weapon against the man's ribs." If we do die that way, you won't be there to see us go! Now speak up and tell us where that broadcaster is located, or it is death for you!"

"Oh, kill me! Put me out of my agony! Save my daughter!" whispered the head, faintly. "You, Trenton, will do it for me, won't you? Shoot me, quick, in the head—destroy my body!"

"How long have you been like this?" asked the young astronaut, addressing the head.

"When Hulan got me here, I lost my senses; when I came to myself an hour ago I found myself as you see me—looking across the room at my own body!" spoke the head in low, dismal tones. "It isn't the pain so much; it is some terrible feeling I can't explain—it is unworldly, like something never before experienced in human ken! It is a terrible sensation! I must die! I must! It is seizing me—it's on my head! If you ever valued my friendship, kill me, Trenton! It is the most merciful thing you can do!"

The three men, forgetting Zind for a moment, stared aghast at the words uttered through the lips of Clarkford's head which had apparently been severed at the junction of the neck and chest.

"Watch out, Sorelle!" yelled Quenden snapping his gun into position and firing from the hip. Zind, in the space of the few seconds in which the attention of the three had been diverted to the decapitated man, had raised a large, heavy instrument above the head of the adventurer.

A silent, blue streak spit from the muzzle of Quenden's atom gun, and for the second time since their escape, the sniping prowess of the man claimed the life of a moon pirate.

"That's for Brekstadt!" announced Quenden coolly, naming the second members of the limited's crew who had been consigned to the huge atom gun aboard the 'Jolly Roger.'

"The radio, you say?" queried Clarkford's voice weakly, while the hands of the decapitated body stirred in a characteristic gesture of query. "It is in the private quarters of Carconte—I heard Hulan say so! My daughter is there—save her! Kill me—that awful feeling—it isn't pain—it is indescribable!"

There followed a groan from between the lips, and the body of the man writhed in an attempt to get away from something.

"We'll have to do it!" announced Sorelle to his two reluctant comrades. "It is the only thing to be done. He can't be saved! We must act before Hulan comes back with the rest of the gang, too!"

"It is horrible—but I guess it is necessary," agreed Trenton.

"Yes, kill me!" implored the head of Clarkford. "Please don't leave me to suffer like this! Don't leave my body intact for that beast to work on, either. Destroy it!"

"Good-bye, Clarkford!" spoke Sorelle in a choking voice.

"I'll get Hulan for you!" swore the avenging Quenden.

"And if your daughter isn't dead, I'll save her," promised Jan Trenton. "Carconte shall die!"

"Farewell!" smiled Clarkford, as he saw the pistols of the three slowly and reluctantly raised to point at his head. "I'll meet you all some time in another existence beyond the plane of the three worlds!"

With a simultaneous succession of blue flashes from each of the three guns, the decapitated head of Clarkford disappeared from view, leaving but a few fragmentary remains. The three men turned their attention to the body which was likewise riddled beyond practical use for experiment in the laboratory.

CHAPTER IX

The Duel to Death

"WHERE now?" asked Quenden after the loathsome business had been completed.

"To the apartment of Carconte, and death to every miserable pirate who shows his face!" announced Jan Trenton.

"Where are Carconte's rooms?" asked Sorelle.

"That's something we must find out!" said Trenton. "Come on!"

The three passed out of the laboratory of Nez Hulan and into the passage once more. Cautioning his two comrades with a remonstrating gesture for silence, the astronaut sneaked ahead of them along the corridor with the stealth of a cat. Sorelle and Quenden were perplexed for a moment at this strange maneuver, until ahead of them they saw a moon pirate who, with back toward them, was busily engaged in some item of work or preoccupation. The first he knew of their presence was when a pair of strong fingers closed over his throat, choking off the cry which instinctively issued from his lungs. Turned roughly about, the moon buccaneer's startled gaze rested upon Jan Trenton.

"One peep out of you, and I'll wring your neck off!" threatened the astronaut.

"A dose of the pistol for you too, if you don't tell us where Carconte's rooms are located!" added Sorelle who had come up beside the two, poking his atom gun against the head of the frightened moon pirate significantly.

"There—that way!" directed the buccaneer, his bulging eyes rolling fearfully in the direction of the menacing pistol whose cold muzzle rested against his temple.

"Lead us there!" ordered Trenton.

The man's obedient efforts to comply with their wishes was ludicrous. Evidently life was precious to the rascal. He led them along the corridor in the direction of his chieftain's quarters, even admonishing them to be silent. The boring muzzle of Sorelle's gun carried a great deal of persuasion and left no doubt within the mind of the lunar buccaneer as to what he should do. Down the corridor and through several rooms —the moon pirate led them, finally showing a doorway down a low hall.

"There Carconte's rooms are, and the woman you seek is doubtless there, too," stated the pirate.

"Well, go on!" said Sorelle.

"No—I'd much prefer you to kill me than to be ushered into the presence of Carconte. You saw what happened to the traitor whom Hulan tortured to death in the council chamber? That would be my fate were I to be found leading you here!"

"But you have no other choice," agreed Sorelle, tapping the pistol suggestively. "Carconte would realize that."

"Death is my other choice," replied the pirate, who, though terror stricken at the fate which awaited him should Sorelle's fingers close upon the knob of the gun, preferred such an end to the horrible death awaiting him at the hands of Nez Hulan.

"I can aid you no further," he maintained obstinately. "You must continue alone."

"While you sound the alarm," countered Trenton.

"No—I promise!" replied the pirate. "To do so would reveal the fact that I had brought you this far, and even my calling to arms the rest of my comrades might not exonerate me before the eyes of Hulan and Carconte—and they, as you already know, are not men to be trifled with!"

"Let him go!" said Sorelle. "Even if I don't trust him, his logic is sound enough—and besides he would only be an encumbrance upon our hands. We'll have to chance it!"

"Skip!" ordered Trenton to the moon pirate, who hastily complied with the curt request, disappearing from sight around the bend in the corridor.

"Hurry up!" urged the young astronaut. "After all, we can't tell what the man may do!"

They pressed on towards the apartment of the pirate leader, and outside the doorway to the first room, they listened for voices. They heard none, and peeping around the doorway Trenton perceived that the room was deserted.

"Come on—the way is clear!"

His two companions followed him through the room, and into the next.

"Where is the girl and the broadcaster?" queried Sorelle.

"That villain deceived us!" exclaimed Quenden vehemently. "Probably he is bringing the rest of them here to annihilate us by now."

"Where do you sup—"

The words of Trenton were cut short by the piercing scream of a woman, coming from the direction of the doorway leading farther into the apartments of Carconte.

Without a moment's hesitation, the three raced swiftly through a succession of luxuriously furnished rooms, examining each one with a cursory, searching glance before proceeding to the next. Ahead of them they heard the sounds of a struggle, and to their ears came the deep vulgar tones of Carconte.

"You vixen—you miserable wench! So you would try to cheat me by destroying yourself? Well, you can't do it now because I took that poison away from you, even though I nearly twisted your pretty arm off to do it! Just for that, I'll take you to see your father! I was going to spare you the sight, but now you will be forced to look! Hulan has him ready to receive company!"

A coarse, vibrant laugh followed the last remark of Carconte, and then the three men of the space ship limited broke into the room, cutting short the laugh of the bald headed pirate who held the fainting girl by the wrist. Surprise, anger and hate mantled his face as he saw who the three men were, nor did he wait for explanation but leaped

across the room to where his atom gun lay upon the table.

The pistol of Sorelle silently spat fire, and with a terrible curse, which wrinkled his villainous face in a hideous grimace, he shook his left arm which dangled limply from the effects of Sorelle's shot. Staggering up against the wall, the pirate chief pressed a button, and from the ceiling to the floor, dividing the room in half, there shot a close set formation of the deep, violet shafts of light which had barred the doorway of their cell upon the pirate space craft. Upon one side, stood Carconte, holding his injured arm, the fainting girl at his elbow, while upon the other side of the deadly screen stood the astronaut, adventurer and the crew member of the interplanetary limited.

"Don't walk through that!" shrilled Quenden warningly. "Remember what happened to Crayton!"

Trenton's eyes blazed furiously and his atom pistol streaked forth its blue flashes in rapid succession at the leering pirate who stood behind the curtain of deadly, transparent rays. In spite of the pain in his arm, Carconte could not repress a guffaw of laughter as the astronaut fired shot after shot futilely at him through the curtain of violet light which nullified the destroying forces of the atom gun.

"It's no use firing at him!" advised Sorelle. "We must find another way of getting across to that other side of the room!"

"If I can't get over there," said Quenden, "I know what can!"

Quickly, he raised a heavy chair and balancing it upon his shoulders cast it across the room through the veil of deadly rays at the pirate chief who was running for a doorway leading from his side of the chamber! The chair caught him on the side of the head and down he crashed to the floor!

"Good!" ejaculated Sorelle. "But that doesn't help us in getting across there!"

"Watch!" directed Quenden, a sparkle of anticipation in his eye as he picked up another piece of furniture.

Straight for the other wall he threw it; right through the curtain of death it went, following the route of the chair, and smashing against the knob on the wall. The shaft of violet light disppeared, and the three rushed across the room, Trenton lifting Suzette Clarkford tenderly in his arms. She was beginning to recover her consciousness.

"We must get out of here!" cried Sorelle. "I hear the pirates coming!"

And indeed they were coming, a rush of many footsteps approaching the room in which stood the three men and the girl from the interplanetary limited.

"We must get to the radio!" whispered Trenton.

"It is in one of the rooms we passed through!" exclaimed Quenden excitedly, motioning for them to follow him. "I saw it when we were coming here!"

Trenton, bearing the girl in his arms, followed Quenden, while Sorelle brought up the rear, guarding them from an attack in that direction.

"We'll hold them off while you are using the broadcaster" said Sorelle to Jan Trenton.

To the room in which Quenden had seen the broadcaster they continued, the running footsteps and excited yells and cries of the moon pirates growing rapidly louder.

* * * * * * * * * *

Into the council chamber where the four men sat in conference at New York City, the greatest metropolis on three worlds, there burst an excited man.

"The 'Limited' has been captured and destroyed by the moon pirates!" shouted the man breathlessly.

"The moon pirates? Who are they?" questioned one of the officials blankly surprised.

"Thieves! Space robbers!" exclaimed the man excitedly. They have captured the 'Limited,' destroyed it, took the treasure, killed part of the crew and its passengers, and the rest of them are in captivity upon the moon! At this moment they are fighting for their lives!"

"How do you know this?"

"They just radioed from the moon, having escaped from the moon pirates long enough to send the message for help!"

"We must send them assistance immediately!" said one.

"A swarm of fighting space craft is already on its way to the moon, having started ten minutes ago!" announced the informant. "They should be half way there by now!"

"Moon pirates!" echoed the head official. "Can it be possible!"

"It explains the strange disappearance of all the space craft within the last few years."

"I remember reading of pirates in the olden days, way back in the past, several centuries ago, but these roved the seas of the earth to loot and murder among the sailing vessels."

"While nowadays the moon pirates cruise the seas of space to rob and destroy space flyers."

"How could they have existed upon the moon so long, without having been discovered. It seems that the information should have leaked out some way."

"Discipline and strict secrecy," explained one of the officials. "And they probably have a clever master-mind at the head of the group. I wonder how many their ranks number."

"Who sent the broadcast?" queried one of the officials, "and from what section of the moon did it come?"

"Jan Trenton stood before the broadcaster," said the man, "and behind him stood two men and a girl. A pale haggard look rested upon her face, and they were all excited and dishevelled," replied the man. "I was at the receiving room when the flash came from the moon. I've forgotten the exact spot they gave. It was somewhere upon the other side of the moon, and they scarcely knew themselves, and were able to give only an approximate estimate of their location."

"Jan Trenton!" exclaimed the official. "You probably all remember him and his narrow escape from death on Mars, when his space flyer became caught on the side of a meteor which plunged headlong toward the Martian planet."

"Yes, it seems that the meteor closely resembled a death's head."

"The Death's Head Meteor," they called it."

"There must be four survivors—one of them a woman."

"J. C. Clarkford's daughter."

"Let's hope the rescue ships arrive in time."

"In the meanwhile, let's tune in upon one of the fighting craft. We can obtain an accurate broadcast of the events as they transpire."

* * * * * * * * * * *

At the door of the broadcasting room, within range of the television screen, stood Quenden and Sorelle guarding against an overwhelming invasion of the moon pirates, while the astronaut delivered his message to the earth which rotated nearly a quarter million miles away in space. From out of the bowels of the dead satellite across the cosmic void to the largest of the three planets the voice of Jan Trenton rang clear to throw into furore, excitement and concern the population of a world, the news to be later relayed to Venus and Mars.

The guns of the two who were guarding the door spit silently as the van-

guard of the moon pirates came into view. They had discovered their fallen leader who had been stunned from the blow delivered him by the chair. Quenden had hurled it with marked success. Before they could check their advance and make a retreat, two of the pirates had given up their lives to the marksmanship of Sorelle and Quenden. And then the moon pirates craftily betook themselves to advantageous positions where they could fire at the little group with the maximum safety to themselves.

"Hurry up with that broadcast!" urged Sorelle. "We can't hold them off much longer! The devils are sneaking up on us!"

"All done!" said Trenton, snapping off the broadcaster.

"Did it get them?" asked the girl.

"Yes," he replied, "and now we had better get out of here before some of the pirates block us off from the other side!"

"Where shall we go?" asked Quenden.

"Somewhere where we can barricade ourselves, and hold them off until help arrives!"

Swiftly the four of them ran through the succession of rooms which constituted Carconte's private apartments, Trenton assisting the girl.

"Wait a minute!" shouted Sorelle as they passed a doorway.

The adventurer pressed a knob upon the wall, and down across the doorway there spread a thin veil of the violet shafts of life destroying light.

"That will hold them for a while!" he said. "It will give us a start!"

Once more they continued their way, running into three of the lunar buccaneers as they made a sharp turn in the corridor.

"Halt!" yelled one of the moon pirates, surprised at the sudden appearance of the four fugitives.

"Brentley!" exclaimed Trenton, recognizing the co-pilot of the 'Interplanetary Limited' who had turned pirate rather than forfeit his life or undergo a brain operation.

"Canute and Holmes!" ejaculated Quenden, also recognizing his fellow crew members who had gone over to the ranks of the moon pirates rather than risk the chances of being consigned to the atom gun or a worse fate.

"We must return you to Carconte!" said Brentley, coming out of his sudden surprise. "We are moon pirates now, you know!"

"In body but not in spirit!" laughed Trenton nervously as his atom gun covered the co-pilot. "I have radioed the earth for help; they are sending a fleet of fighting craft; are you with us, or must we fight it out here?"

Brentley and his two companions considered for a moment, possibly ruminating as to the outcome of the affair, wishing to be upon the winning side.

"How do you know they are coming?" asked Brentley suspiciously.

"Because I just radioed them!" replied the young astronaut.

"I'm willing to join forces with you!" decided Brentley. "What do you say, Holmes?"

"We'd better," replied Holmes.

"And you Canute?"

"I'm with the majority!" announced Canute. "We'd better dig for safety at once; they're coming!"

A howl of rage greeted their ears as the pirates were halted at the doorway of the chamber where the violet rays of light blocked their further progress, making it necessary for them to retrace their steps a considerable distance through the labyrinth of rooms and corridors in a detour of the fatal shafts of deep violet light.

"Come, said Brentley, "I know where we can maintain our best stand!"

The little band of fugitives, whose ranks had been increased to seven, now raced at top speed through the subterranean chambers of the moon, finally reaching a room which boasted heavy, massive doors of metal.

"In here!" announced Brentley, leading the way. "There are loopholes in the door from which to fire!"

"Good!" said Sorelle, as the seven fugitives took refuge within the chamber, barring shut the heavy doors.

They awaited the coming of the moon pirates, atomic pistols directed through the loopholes in readiness for the attack which was to come.

"Where is my father?" asked the girl of Jan Trenton.

The space ship pilot with a troubled look upon his face sought vainly in his mind for some way to explain the manner in which Clarkford had met his end without shocking the girl with the horrible truth.

"Is he dead?" she asked.

"Yes," replied Trenton, his voice sinking to a whisper. "It was better so rather than to have lived to endure the fate Hulan had in store for him. When we arrived, he was beyond rescue, and at his own request we did that which was most merciful."

The girl broke down and sobbed despairingly, her heart torn with grief, while the young astronaut did the best he could to comfort her. Finally she gained control of herself so that she could speak coherently.

"He was all I had left," she said. "My mother died seven years ago."

"Here they come!" cried Sorelle. "Let them have it!"

The moon pirates were repulsed, suffering the loss of only one man, and then followed a gun duel of pot shots taken at one another, neither side scoring any hits, due to the fact that both factions were overcautious. This satisfied the group of fugitives, for they were only stalling for time.

"We're sunk!" exclaimed Holmes suddenly. "Look what they've got!"

"The ray gun!" exclaimed Quenden.

"They're turning it on the door!" cried Sorelle.

"Quick, out this other door!" said Brentley. "We can't stay here any longer!"

And it was true. Already, several large holes appeared in the heavy metal door as the destructive ray penetrated their stronghold. Firing a few parting shots, they prepared to leave by way of the other door. As Brentley swung it open, the fugitives gave a gasp of dismay at the sight they beheld. Standing silently outside, awaiting just such a move upon the part of the fugitives, stood the pale countenanced Nez Hulan, the human robot, a grim, cruel smile distorting his death-like features below the aluminum cranium and forehead. With him were three more of the moon pirates. He levelled a steel arm at Brentley in a denunciatory manner.

"So we have another traitor—And so soon!" he rasped.

From the metal palm of his hand there shot a yellow ray of light which burned a clean-cut hole clear through the chest of Brentley, who fell choking, gasping and bleeding in a lifeless heap upon the floor. It had all occurred so quickly, Brentley being the first to emerge from the room, that the fugitives had hardly gotten over their sudden surprise before the co-pilot lay dead at their feet from the terrible destroying ray which had shot from out of the mechanical arm of the ruthless machine man.

"That is what happens to all traitors or enemies of the moon pirates!" sneered Hulan.

"And to human devils!" cried Quenden, his atom pistol flashing forth sev-

eral times in quick succession at the arch-villain of the moon pirates.

A dull, blank look overspread the crafty features of Hulan as with mechanical arms he gripped his vitals where the shots from the atomic pistol had taken effect, and swaying weakly he tottered and fell, dead for the second time in his career, this time irreparably so.

"That's for Clarkford!" shouted Quenden exultantly, as several shots from the moon pirates entered his own body.

Quenden swayed slightly as death crept over him, but as he fell his spitting pistol claimed the lives of two more of the space buccaneers, and he died bravely fighting to the last. His inanimate form slumped across the dead form of the man he had sworn to kill, the mechanical-limbed demon who had been recalled to life without a soul.

A single moon pirate blocked their progress, and a shot from Sorelle's gun disposed of the remaining buccaneer.

"Get out of here quick before some more of them come!" cried Sorelle to those who crowded the doorway.

The five remaining fugitives left the room which the moon pirates were about to enter *via* the other doorway, having cut the metal door to pieces with the ray gun. Down the corridor they sped, entering another room.

"The elevator!" exclaimed Canute excitedly. "The surface suits are above! We can escape to the surface of the moon! There are two elevators: one with an air lock at the foot of the shaft, while this one has an air lock at the top."

"Pile into the car!" exclaimed Trenton. "I'll hold off the pirates until you get it started!"

The buccaneers in the meanwhile under the leadership of Carconte, had entered the chamber just quitted by their recent captives and had discovered the bodies of Hulan and their men, as well as those of Brentley and Quenden. On they came, down the corridor towards the room in which the five remaining crew and passengers of the space ship were attempting to escape to the surface. The loud voice of Carconte urged on his men with vile threats and foul language, bemoaning the loss of Hulan's brain power.

The blue streak from Jan Trenton's pistol halted the rush of the moon pirates who discreetly halted, not one of them wishing to sacrifice himself that the rest might accomplish the subjection of their late prisoners. In the elevator car, the rest of the fugitives attempted to solve the problem of the elevator's locomotion, its operation being based on radical principles evolved by Hulan. The astronaut held off the moon pirates. Finally, Sorelle found the means by which the car was made to ascend or descend, and with a jerk the car started upward only to be checked by the adventurer who called to the astronaut to get in.

CHAPTER X

The Earth Ships

JAN TRENTON leaped into the elevator car which began to climb upward, while behind him the villainous band of space buccaneers under the command of the dark visaged Carconte, whose bald head bore a deep bruise, rushed down upon the elevator lobby just in time to see the bottom of the car disappearing out of sight above them.

Rapidly the car ascended, bearing the four men and girl toward the surface.

"Where does this thing stop?" asked Sorelle.

"There are some upper chambers with an air lock and surface suits up here some place," said Holmes.

The elevator car continued onward, gaining speed and acceleration of its own mechanism. Finally it slowed to a stop and the fleeing fugitives stepped out into the room in which the moon surface suits hung in a neat row upon their hangers.

"I've worn this sort of thing before," said Sorelle,

"So have I," remarked the astronaut, "but not under such pressing circumstances as these."

The five hastily donned the surface suits, Trenton assisting the girl into one of the clumsy accoutrements with its huge helmet, and then they entered the air-lock chamber, after which they made their way along the narrow tunnel leading upward on a gradual ascent, bringing them to the platform deep within the moon crater.

Looking upward, they could perceive the mysterious grandeur of the dazzling sunlight where it struck the ragged lip of the crater, throwing into relief a chaos of illuminated spots and sharp etched shadows.

"Climb upward!" directed the astronaut, pointing to the ladder which ran up the side of the crater. "The girl will follow you; I will come last!"

Up through the blackness towards the sunlit crags of the moon crater's rugged lip, the five fugitives climbed to escape the wrath of the avenging buccaneers of the lunar satellite.

"I'm dizzy," complained the girl through the radiophone in her helmet to the astronaut below her. "My head feels light, and I must cling tight or I shall fall!"

"It is the sudden change from the gravity of the earth to that of the moon," replied Trenton. "While we were in the moon chambers of the pirates we were under the same attraction of gravity as on the earth, the floors of the rooms being composed of the same gravitational substance we use in the space flyer. The sensation will soon wear off when your body becomes a little more accustomed to the sudden reduction of gravity. You have never been on the surface of the moon before, have you?"

"No," replied the girl.

"You should visit Phobos and Deimos some time," said the young astronaut, trying to divert the girl's mind from the seriousness of their present situation by referring to the two tiny satellites of Mars. "If you give too hard a jump upon Deimos you'll never come back, but will continue right off into space."

Ever upward they continued their ascent, finally emerging into the brilliant sunlight upon the crater lip which overlooked the dreary, funereal aspect of the moon's surface. It was a weird, beautiful panorama of melancholy loneliness which stretched away to the horizon whose sharp cut features stood out clearly where it met the blackness of space, studded with its fiery, scintillating galaxy of far-off suns and worlds. At another time the five fugitives would have stood spellbound at the sight, momentarily entranced by the scene spread out before them, but they were gambling with death, their lives being at stake.

"Between here and the earth help is supposed to be on the way!" said Sorelle. "I hope they arrive in time!"

"It's curtains for us if they don't." ejaculated Holmes. "Let's dig for shelter; the pirates will be after us if we stay here!"

In wide jumps and awkward hops, the five began their descent of the rise, which led to the crater's edge. The girl, unaccustomed to moon travel by foot, landed in an ungainly heap upon her side after having leaped some twenty feet or more into the air in an effort to

clear an obstructing protrusion of rock about five feet high. A startled shriek rang in the ears of the four men as the girl started rolling and bouncing towards the edge of a deep crevice which yawned below them! With a headlong leap, Jan Trenton seized the girl upon the very brink of the unterminable abyss. Unable to check his impetus in order to halt his and the girl's fall into the lunar crevice, he gave an added push with his feet in a superhuman effort to bridge the awful gap with his human burden! The other side of the gulf represented a jump of some thirty feet which the astronaut ordinarily would have consummated with ease, but with the added weight of the girl it was a different matter. Across the unknown depths of the gulf the bodies of the two shot, while their three companions held their breath in horror. Would they make it?

Upon the verge of the ragged pit, Jan Trenton, unable to check his headlong flight, had put every ounce of strength into that push which now carried the two out over the moon crevice. His free arm stretched outward as he saw that they were going to fall short of the other side. The claws at the extremity of the arms in the surface suit were ready to grasp frantically at the smallest protuberance which might save them from the jaws of death which awaited in the semblance of the jagged rocks of the gloomy pit's bottom far below. They struck the opposite wall of the wide crevice several feet below the top ridge, Jan Trenton clinging desperately to the rough surface with one arm and hand. With the other arm he grasped the girl firmly. Once more the ancient proverb of "fortune favors the brave" had justified itself, for the astronaut had grasped at a rough outcropping which firmly checked their further descent. It took but a slight inertia for them to leap up over the edge of the pit's mouth.

"You have done so much for me already, and now I owe you my life," said the girl. "How can I ever repay you?"

"By taking my hand, and allowing me to assist you over the more dangerous stretches of the moon's surface," said Trenton.

The other three now leaped over the deep abyss which had nearly claimed the lives of their two companions, and were at their sides.

"We must find a place of refuge in which to hide until the space ships from the earth arrive," said Sorelle.

"They should be here by now," replied the astronaut. "Perhaps they are looking for us. I was unable to give them a very accurate estimate of our location. I noticed that the spot where we descended into the crater is not a very great distance from the Grisenwald mountains, and that was the only clue as to our location I could give them."

"There's the place to hide until they come!" exclaimed Canute. "See! That peak—it appears to be hollow!"

"Good enough!" said Trenton, starting for the designated peak in company with the girl to whose arm he clung, guarding her from the dangers which threatened the uninitiated who attempted moon travel for the first time.

Rapidly, the five ascended the steep grade in long hops and leaps which would have appeared prodigious upon the earth, the spiked shoes of their surface suits gripping the crags of the slope securely.

"There they come!" wailed Holmes just before the five fugitives succeeded in gaining the sanctuary of the peak.

Looking behind them, Jan Trenton saw two men in surface suits standing upon the lip of the moon crater which led to the rendezvous of the lunar buccaneers, while several more were joining them from the interior. Excitedly they pointed to their recent prisoners

of the 'Interplanetary Limited,' who were just disappearang within the shallow cavity of the peak they had climbed.

Several of them raised their atom pistols and fired—at a distance of some five hundred feet or more. Without a sound, Canute stiffened and pitched backward, his lifeless body rolling into a rough formation of calcareous outgrowth where it lodged firmly between two rocky protuberances.

Trenton, Sorelle and Holmes hurried into the protecting hollow of the eminence, the astronaut conducting the girl to safety.

The three men then removed their atom pistols from the pockets of the surface suits where they had placed them before attempting the arduous ascent of the long ladder out of the crater. Awkwardly, they attempted the manipulation of the guns with the ungainly, steel claws which terminated the arms of the surface suits.

"How do you work these guns with the claws?" queried Holmes.

"I guess you don't," replied Sorelle. "But the pirates seem to operate them without trouble. They shot one of us!"

"I've got it!" exclaimed Jan Trenton who had been examining the extremities of the arms in his surface suit. "You don't need to hold atom guns in these claws—there are atom guns in the right arm of each suit! They are built-in affairs!"

"Well, I'll be—" exploded Sorelle as he stared amazed at the small muzzle which protruded a short distance from the arm of his surface suit, being located between the steel claws. "How do you fire them?"

With that little button inside your sleeve, just above the claw controls," replied Trenton.

Sorelle needed no more instructions, but was soon firing away at the pirates who stood boldly in plain sight upon the crater's rim. One of them toppled backward into the depths of the lunar pit before the rest discreetly hid themselves behind rough outcroppings of jagged rock. Then ensued a duel in which no more lives were claimed, consisting of a game of fire and duck, the blue flashes from behind the rocks of the dead satellite marking the positions of the moon pirates.

"They're sneaking up on us!" announced Holmes.

"That's all right," replied the young astronaut. "They can get to the foot of this rise and no farther. We can hold them off a long time. If they try to rush us, we'll mow them down."

Anxiously the young astronaut scanned the star-lit sky in which the sun shone like a flaming sphere, its corona leaping outward from the incandescent mass for several hundred thousand miles. Where were the rescue ships from the planet which rolled on its way nearly a quarter million miles away from the other side of the moon? Why didn't they come? They were nowhere in sight.

"The pirates are coming closer?" announced Suzette Clarkford.

"They can come no farther," said Jan Trenton. "There are no more barriers behind which they can hide. To come any nearer they must show themselves."

"We're doomed!" yelled Holmes. "There isn't a chance for us now!"

The man pointed to a great, black object which was rising slowly out of the moon crater which led to the subterranean chambers where dwelt the rascally brigands of space who robbed and destroyed upon the interplanetary highways between worlds.

"The pirate space ship!" swore Bret Sorelle. "We're trapped like rats!"

The black hulk of the 'Jolly Roger,' its white skull and cross bones glaring menacingly at the four survivors of the 'Interplanetary Limited' crept up out of

the crater. Slowly it arose above the ragged edges of the crater's rim, until it rode high over the jagged formations which lined the circle of the lunar cone. It's ghastly yellow disintegrator ray now shone dismally from beneath the hull of the pirate space ship as it headed for the doomed men and girl.

With a yell of fright, Holmes leaped over the edge of the cup-like depression of the rocky peak which held the four remaining fugitives. While he was still in the air on his first leap a dozen shots from the atom guns of the pirates hidden upon the moon surface found their mark on his body, and when he landed, his inanimate form rolled limply down the side of the hill and out of sight into a narrow cleft at the foot.

Tensely, the two men and the girl awaited the ray which would send them into oblivion as the space ship hovered near them. It was evident that from the attempts to shoot them down, the pirates were bent on destroying them, and even had they been given the opportunity to have surrendered, they would have fought to the death, preferring such a welcome end rather than that which lay in store for them at the hands of the moon pirates.

Suzette snuggled comfortably within the protecting arms of Jan Trenton.

"Good-by!" she said, "you have been so brave and good. Would it be a comfort to you before you die to know that I love you?"

"You love me?" cried the young astronaut, looking through the transparent front of their helmets down into her sweet face, joyfully oblivious to the approaching doom which hovered ever nearer, granting them a love of but a moment before the destructive ray should sweep them into the arms of death.

"Yes!" replied the girl. "Even when I first met you, and my regard for you has grown ever since then."

"I've known you scarcely any time, yet it seems ages!" answered the young astronaut. "I didn't dare to love you when I first saw you, even though my heart cried out for you, because I thought you were beyond my reach."

"Love is greater than all else," said the girl, nestling closer to the space ship pilot. "It can overcome everything—even death!"

"I wonder," mused the astronaut as he gazed above to where the ugly space ship hovered above them, its ray sweeping gradually up the side of the rise.

"Well, we three held them off together until the end," exclaimed Sorelle in farewell. "See you later!"

As the deathly shaft of yellow destruction came stealing to the edge of their stronghold, Jan Trenton hid the face of the girl by turning the front of her helmet against the chest of his surface suit while he lowered his head upon her helmet. Would the love this life had so cruelly denied him be his beyond the pales of death? Would she be there with him, or must he fight his way through more adventures to her side upon another plane of existence? She would be his—of that he was certain—no matter where they were.

A hoarse yell from Sorelle greeted his ears, interrupting the closing reveries of his life. Doubtless the ray had struck the brave adventurer before it had them, and this was his dying cry. Someone shook him vigorously. He looked up.

"We're saved!" howled Sorelle, jumping with glee so high above the hollow interior of the peak that it would seem he was never coming down. "Look at the dirty beggars run, will you! And look over there!"

Sorelle pointed excitedly at the figures of the besieging moon pirates who were running confusedly in all directions from their points of vantage where they had cornered the fugitives, and then his

arm swept over to a sight which the astounded eyes of Jan Trenton could hardly believe! There lay the wreck of the Jolly Roger, its sides smashed in upon the surface of the moon while above it rode several space ships, more of them appearing rapidly out of the cosmic void!

"The earth ships!" cried the young astronaut. "They have come—just in the nick of time!"

The bewildered eyes of the girl took in the startling scene.

"It seems unreal!" she said, "as if I were dreaming this! Can it be possible!"

"I'll pinch you if you wish!" announced Sorelle joyfully.

"We have one another now, Suzette," said Trenton. "Do you still mean what you said before we were going to die?"

"Why of course!" answered the girl, her pretty eyes sparkling with love from behind the transparent facing of her helmet.

"Then you are mine!" he said.

The space ships from the earth had blown up the pirate craft just as it was about to perpetrate its dastardly act and destroy the three remaining fugitives with its disintegrator ray. They had cruised about the vicinity of Grisenwald Mountain far above the moon, the telescopes of the fighting space ships searching for some sign of the moon pirates rendezvous, and then they had spied the moon pirates swarming out of the crater, followed by the pirate ship. A long range shot had destroyed the black craft with its hateful emblem. With the pirate ship hovering above them as it exploded, and the appearance of the fleet of armed interplanetary ships from the earth, the besieging moon pirates ran for cover within their underground stronghold.

Hulan had been killed by the incomparable marksmanship of Quenden; and Quenden had immediately after succumbed to the shots of the other moon pirates who had riddled him. Zind had also met his death at the hands of the avenging sniper, while Carconte, the pirate chieftain, had been present with a large number of his crew in the Jolly Roger when it had met its destruction at the hands of the fighting craft from the earth. The rest of the moon pirates, disorganized, without leaders, and in the face of such a hopeless situation, did not even attempt to escape but surrendered meekly to the forces from the earth who took them into custody, their fates to be later decided by the Interplanetary Council which resided upon the 'world between,' the planet earth, whence all mankind had originally come.

The treasure which had been pilfered from the 'Interplanetary Limited' by the buccaneers of space was placed in one of the space ships from the earth to be transported to that planet, where it would later be relayed to Mars. The heterogeneous collection of space flyers and the furnishings of the moon chambers were at a later date to be confiscated among the three worlds, and the terrible creations of Nez Hulan's turned over to the scientific bureaus of the three planets.

On one of the space ships returning to the earth, the three survivors of the grim tragedy sat in relaxation from the series of strenuous events and nerve wracking escapades they had undergone.

"Forget it!" laughed Sorelle. "You two have each other. I saw it coming on the first time you met, up in the observatory of the "Limited." Besides, I'll be back in a few months. No need to ask what you folks will do."

The adventurer and explorer grinned understandingly, and then, noticing that he was the only one in the room besides the astronaut and the girl, made the discreet remark: "Well, I guess I'll go up in the pilot's cabin and see how we're getting along."

THE END

Eighty-Five and Eighty-Seven

By EANDO BINDER

The great chemical unit, the atom, is taken as being composed of protons and electrons, positive and negative units of electricity, and the atoms are arranged in a series based on the phenomena developed in them by these two kinds of electric units. This series is not quite complete and may go much further than it has yet been carried, for it is believed that a new element has been discovered to go at the end of the long series of 92. The name of this story designates the serial numbers of two atoms.

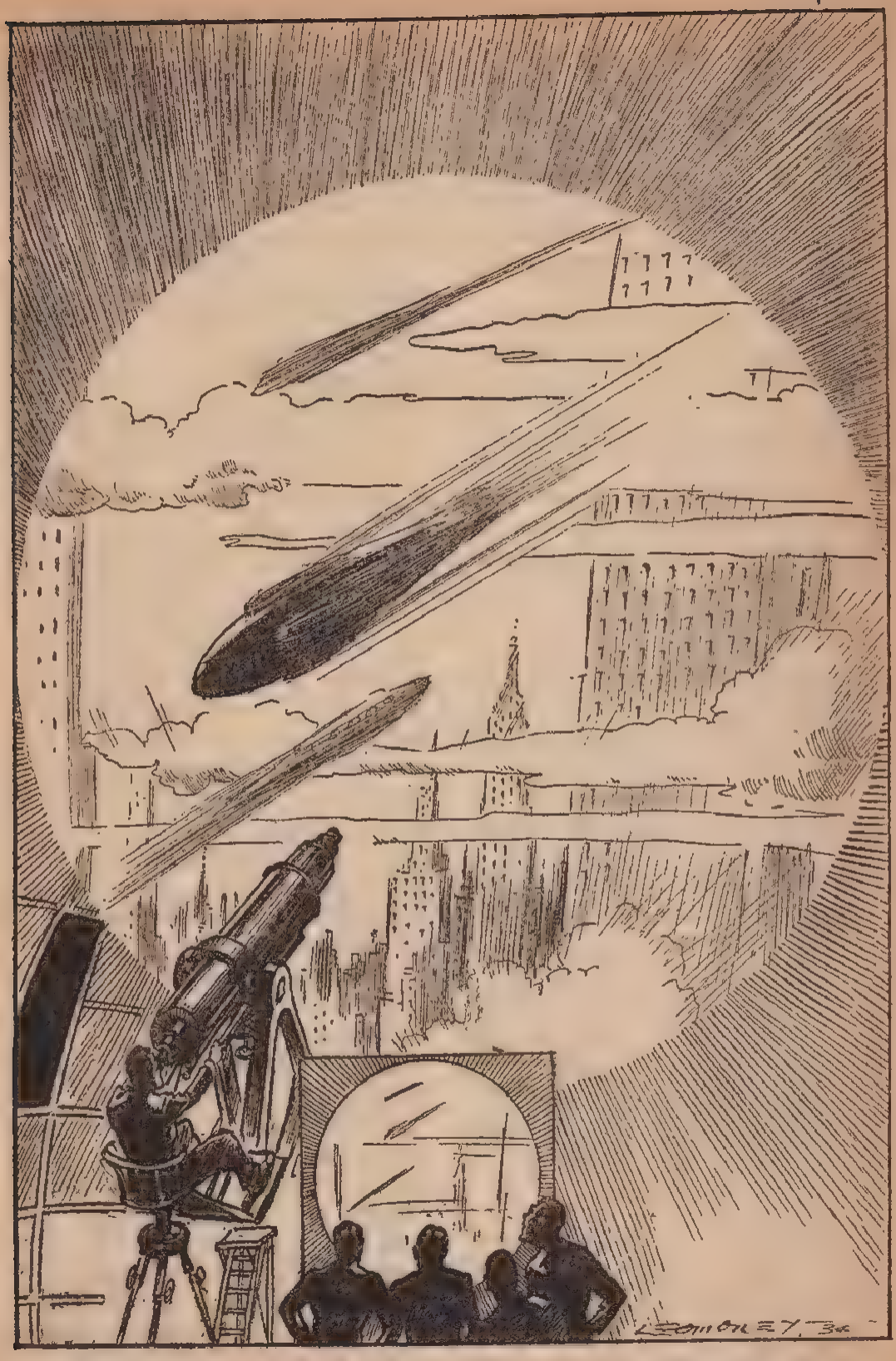
The Professor

WHEN Professor Johann Haupt (President of the world-renowned Clique of Science with its headquarters at Vienna) in the year of 1946 secluded himself from the world and made his abode high up in the Tyrol mountains, he not only relinquished society and his honored position, but, it, seems, as the years passed, that his illustrious name, also, faded from the memories of his former colleagues. The mere mention of his name at one time brought hushed attention, and when he spoke, he never failed to astound those present with the products of his brilliant mind. Now, after years of absence from the scientific fireside, his name scarce aroused memory or recognition. So the world has ever been; absence can make living genius be forgotten.

Perched upon the flat top of a crag that seemed separated from a range of peaks as if a huge wedge had been driven into the side of the mountain, and so thrusting it aside, was the isolated laboratory and home of Professor Haupt. It was a low, rambling affair, yet solidly built with thick stone walls. The distance lent it a grotesque appearance; it conformed with its foundation, and its gables were as the peak of the crag.

If Professor Haupt's one-time friends thought that he was enduring privations, or that his isolated habitation made solitude unbearable, they were sorely mistaken. Within this large and well-built structure of stone were every modern convenience and contrivance. There was a super-powerful radio (of Professor Haupt's own design) which enabled him to tune into any station in the world. To this set was connected one of the remarkable Marco-Televisors, that had astounded the world by their perfection but a few years ago. So he never lacked for news or the rare entertainment of viewing scenes of actual occurrences transpiring throughout the world.

Wealthy, he deprived himself of nothing in this retirement. For reasons of his own (which will be disclosed later) he



At various times the mist which covers the surface of the planet was broken to reveal . . . cities that towered high into its atmosphere, great cylinder-like airships.

had chosen this place, yet saw to it that nothing would be lacking which made for bodily comfort or mental advancement.

At great cost he had a circuit of high voltage electricity connected by a cable, which led to his laboratory. This power was also used for heating, besides the hundred and one other uses for which it is indispensable in a thoroughly-equipped laboratory.

Professor Haupt had contracted with a grocer of the village, whose houses nestled in the verdant valley far below, to send up to him food supplies once a month and other necessities used in his experiments. Liberally paid for this service, the grocer saw to it that promptly on the 30th of each month two husky youths from the village made their appearance before Professor Haupt's door, generally heavily loaded.

So withal the professor was as comfortable and contented as few would have imagined. Here he was unmolested in his experiments by the visits due to curiosity of his former hosts of friends.

His only servant (a trusty old man many years in his employ) disturbed him only to announce his meals. That worthy individual, when his pots and pans, his cooking and cleaning were done, would hie himself to his quarters to indulge in sleep, or to the study, to interest himself with the radio or televisor. He never ventured into the laboratory, except upon Professor Haupt's request, when perhaps some little assistance was needed.

It appeared that the time had arrived for the professor to be helped in his work by one he could trust.

WINTER, in all its fury of snow and cold, descended upon the little village huddled in the deep valley of the Tyrol Mountains. Gust after gust of wintry blast blew down from the frozen peaks above, now obscured by the snow-filled sky.

It was late in the afternoon, when into the deserted street of the village a solitary figure made its way. Plodding on, the heavily-clad stranger bent himself against the force of the descending blasts, shielding with heavy-mittened hands his face against the driving, swirling snow that stung it mercilessly.

The inn, to which the stranger was making his way, with its madly-flapping sign, was barely discernible.

His entrance was accompanied by a shivering blast and a deluge of snow that chilled the inn's occupants. Quickly closing the door, the stranger made his way to a table near the glowing electric coils and ordered hot coffee. While waiting for this he took off his ice-encrusted outer garments and warmed himself thoroughly.

To those who were present this stranger seemed a young man not over twenty-five. He was of medium height, physically well-proportioned and of a pleasing countenance. If they stared at him, it was because of two remarkable things about him. One, the eyes; they were exceedingly dark, almost black in the dimness of fading day, yet they sparkled like gems upon which sudden light is thrown in darkness. Second came his lips, lips that portrayed such sadness, that his entire features were overrun with that expression. His locks of black hair that hung forward, could not (try as they would in their unmanageable state) conceal the lofty forehead that towered behind.

Some continued to stare even after the host had arrived, had served his coffee, and was taken into conversation by the stranger. However nothing could be heard above the shrieking of the storm without and the blare of the radio over which came a loud and stirring march.

"Just how far from here is Professor Haupt's laboratory?" asked the youthful stranger of the host as he sipped his steaming coffee.

"In this kind of weather I would say about a five-hour climb," answered the host.

"Could I get a guide to-morrow?" asked the youth filling his cup the second time.

"Not if this weather keeps up. There isn't a man in the village would attempt it. It will be bad enough with this snow after the storm breaks up; and believe me, young man, it's a weary bird you'll be before you reach that eagle's nest of his," laughed the corpulent innkeeper.

"I have it," explained mine host suddenly as the youth was about to speak, "Herr Bruder, the grocer, is sending up his supplies day after to-morrow, like as not the storm will be over by then. You can go with Hans Staal and Eric Bower, who have been employed to do this once a month. Two dare devils and as sure as two mountain goats; you couldn't wish for better guides," and the inkeeper slapped his fat thighs, as his face beamed with satisfaction.

Five days later we find Karl Marienfeldt (for that was the stranger's name) well-established in Professor Haupt's isolated but comfortable home. He acquainted himself with the laboratory preparatory to his duties as the assistant of the old professor.

Professor Haupt had wired to Vienna for Karl upon learning of his father's death and for two other reasons: one being that Professor Marienfeldt's fortune had been in an unknown manner swept away, leaving his son destitute; and because Karl, during his three years at the university showed marked inclinations to follow in his illustrious father's footsteps as a renowned chemist.

And now the profressor felt that Karl was well established in his position as assistant told him his secret.

ONE night, a week after Karl's arrival, Professor Haupt after supper took him into his study, to speak about his new duties, as he had remarked over the supper table. Karl could not help but feel that this statement was only made because of the servant's presence, for there was about the white haired, ruddy-complexioned and intellectual-featured professor sitting opposite him an air of deep secrecy, something of vast importance, that his merry, twinkling eyes somehow announced.

It was a luxuriously furnished and comfortable room adjoining the laboratory. Seating themselves in deep upholstered chairs, a silence ensued that was broken only by the ticking of a stately clock, standing sentinel beside a long shelf of books.

After lighting his customary cigar, Professor Haupt spoke.

"Karl, as my assistant it is necessary for you to know something that has remained a secret with me for many years. When I have finished, it will be known to two, and to you and to me only, until I shall deem it the proper time to disclose it to the world. Am I understood, Karl?"

As Karl answered in the affirmative and sat forward in the eagerness that gripped him, Professor Haupt bade him to make himself comfortable for much had to be said.

"You have wondered, perhaps, as many others have, why I chose this isolated spot for a habitation and a laboratory when the immense cities of to-day offer such comfort and luxury. But, to be explicit, I must go back ten years. I have always been fond of hiking, in fact, I preferred it far above the grinding routine of the great public gymnasiums. For to me it not only offered me exercise, but it afforded me the opportunity of seeing and enjoying the beauty and solitude of nature.

"During my customary vacation in the mountains one summer, I wandered into this section, and its surroundings so appealed to me, that I immediately made a

fortnight's reservations at the inn of the village below.

"Upon the natives informing me that an exceptionally fine view could be had of the country about us from the summit of this crag, I decided one morning to climb it.

"It was quite a strenuous climb for a man of my years and tired me exceedingly, so I seated myself to rest; I forgot my weariness as I literally drank in the beautiful panorama that presented itself: the village like 'Toyland' below me; the snow-covered peaks towering into the blue above me; and the height and distance lending an indescribable charm of perspectiveness. Karl, Man's handiwork, no matter how astounding, cannot compare with nature's," and the old professor closed his eyes in contemplation and smoked in silence for several minutes.

Arousing himself as if with an effort he continued, "Having enjoyed this for several hours, I was about to arise and begin my descent, when my eyes encountered the formation of the ground about me. I was astounded; I could not believe my sight; the ore, for of such it was composed, was of such a color and composition as I had never seen before. Taking a sizable portion with me, I returned to my laboratory in Vienna as quickly as possible, keeping it a secret.

"I analyzed it and to my utmost joy the tests proved it to be an unknown ore containing some foreign substance never met with before. Continuing my tests I became convinced that this peculiar ore contained element No. 85, the element following polonium!

"Upon making this discovery, I decided to give up my presidency and here build a laboratory, thus better enabling me to keep it a secret. In Vienna I had been experimenting in a field of investigation, continued failure of which experimenting made me despair, until I chanced upon this rare ore, which I thought at last offered some hope of success.

"After years of the most exhaustive analytical work, success at last rewarded me. Karl, that ore contained element No. 85, and I've extracted all of it!"

When Professor Haupt concluded the last word of that statement Karl leaped to his feet and his face and sparkling eyes portrayed the emotion that surged within him.

"85—85," he whispered hoarsely, bending over the seated professor, "Can I see it?"

"Most assuredly you can see it, Karl, come," said Professor Haupt and arose leading the way into the laboratory.

Winding their way between huge and intricate apparatuses of Professor Haupt's own design, they stopped before a glass-topped table. Upon it rested a cabinet of exceedingly thick glass and within it were two small glass bottles, plainly labeled "No 85" and "No. 87"—Possible".

Karl could not restrain his excitement as the Professor calmly opened the cabinet door and took out the bottle numbered 85. Handing it to his assistant that young man gazed at it as if entranced.

He saw a bluish slightly glowing crystalline substance similar in appearance to iodine except in color. As he gazed at it Professor Haupt spoke, "So rare is it that from about three tons of ore I have been able to extract the small amount before you, one ounce and a half; and the final residue I am convinced contains No. 87. Some day we will extract that, too, from this black powder.

"But the ore, Professor, is it unlimited?" asked Karl.

"No, that is all the world can have of 85 and 87."

"But—but—", stammered Karl perplexedly.

"My theory;" began Professor Haupt as he replaced the bottles, "is that a mete-

orite from some planet rich in this ore, was hurled through space at some remote time and landed upon this crag's top. I have used every grain of ore and I am positive there is no more in existence, according to this theory."

"It can hardly be of use to the world," said Karl.

"No, only in the matter of chemical theory. I have chosen you to assist me in the experiment, which I nearly despaired of years ago in Vienna," and Professor Haupt extended his hand.

Many days were to pass since that eventful night. Days of toil and trial that stretched into a year.

Now Karl possessed peculiarities which often put Professor Haupt in a mental turmoil of thought, but endeavor as he would, he could find neither source nor reason for them. These peculiarities centered around what modernly would be called, "hunches."

In the year that passed there were many instances (during some experiments that had taxed and thwarted every mental effort of the Professor) that Karl would, without apparent reason, word, permission, or suggestion use bizarre methods, compounds, etc., and to the amazement of the professor, they always terminated in success. Asking for the reason or the basic law, he would receive nothing more from Karl than a shrug of his powerful young shoulders, followed with a nonchalant, "Just a hunch, Professor."

Silently, with close study, he tried to solve this baffling sense or hunch of his assistant, but without success. Although Karl's education and knowledge of chemistry and science was above the average for a young man of his age, these facts alone were not enough to account for such amazing things, so the old professor as the days passed by, finally gave up trying to find the keynote and contented himself with the thought that he had an invaluable assistant. In this he was correct as passing time later corroborated.

And now we read of the return of Professor Haupt to the great world of science to disclose his discovery.

ON a brisk autumn day in late November, the usual staid calm of the members of the Clique of Science was upset by the announcement of its secretary that a telegram of vast import had been received. Further shock was added to the confusion, when it was found to be from none other than Professor Haupt, he who had been practically dead for ten years in his inaccessible home in the Tyrol.

Professor Haupt arrived amidst a welcome he did not expect—received by every notable scientist of that day. The chairman personally conducted the old professor, and his seemingly nervous servant, to the same room he had occupied at the time of his presidency.

After the welcoming banquet in his honor all retired to the luxuriant lounge, where the professor renewed old acquaintances. Here plans were formulated for a meeting which would take place a month after the date of his arrival, to give ample time to those members who resided or were upon duties, in other capitals of the world. The purpose of the meeting was to disclose the results of an amazingly successful discovery.

That night Professor Haupt retired, with no little elation, as his thoughts reverted to his reception by those whom he thought had forgotten him. Yet, amidst all this, there still lingered in his heart an inexplicable loneliness and longing for the youth that was not there to enjoy these plaudits for their success.

The days passed, and the hour at last arrived—the audience hall of the Clique of Science was fast filling with its distinguished members. Gathered here and there in various groups, whispering and

gesticulating, the most illustrial scientists of that year were animatedly conjecturing with word and argument as to the nature of this latest discovery.

It was with some difficulty that the chairman finally succeeded in his requests for order and silence. Following this were brief and customary formalities regarding the introduction of Professor Haupt.

As that venerable old man ascended the platform from which he was to address them, a hush fell upon that great hall—a silence such as can only be, in a place where intelligence reigns and profoundly listens to the enchanting, electrifying voice of genius.

"Gentlemen," began Professor Haupt, "You have done me great honor this evening by your presence here. I only hope that in having set the date of this meeting a month in advance, it has given a sufficient time for all of you to prepare for this occasion.

"I must ask for your patience, because I am forced to go into detail and narrate certain events, interweaving these as I go along so that stitch by stitch, strand by strand, and color by color I shall endeavor ere I conclude, to set before you not a fantastic picture, but something clear, distinct, and beautiful, as a painstakingly-woven tapestry.

"When I left your midst, it was not to isolate myself, fostering the thought to shun society, from prejudice or hatred of humanity, nay, it was with a set purpose. To accomplish this I needed absolute solitude, where my every faculty could concentrate without the slightest molestation.

"You are all informed regarding the so-called noble gases, of which there are six, namely helium, neon, argom, krypton, xenon, and radon. Four, as you know, are found in small quantities in the atmosphere. By manipulation of large quantities of liquid air these four may be obtained in quantity, and stored in a compressed state in steel cylinders. You are also aware that helium (which is exceedingly abundant in our sun) is extracted from oil wells, being the first product after the sinking of a new shaft. And radon is obtained from the decomposition of radium. This, of course, is the rarest of all. It is an established fact that there are no known compounds of the six inert gases. If any of you have experimented in this field you are well aware that flourine, the most active element known, capable of dissolving even silica and glass, has no effect upon them, nor is there a known element that will combine with these gases. However, there are as yet two unisolated elements, No.'s 85 and 87 in the atomic table and respectively known as eka-iodine and eka-caesium. The former would be non-metallic, a solid, reasonably active chemically and related to chlorine bromine, and iodine. The latter would be a soft, and very active metal, decomposing water rapidly, and related to sodium and potassium of the alkali-metal group. In fact, No. 87, when discovered, will be the most active metal known. Therefore, is it not reasonable to surmise that either 85 or 87, or both will chemically combine with the inert gases to form hitherto unprecedented compounds with exceedingly singular properties? Gentlemen!"—and all heads became erect as Professor Haupt's voice rang vibrant with emotion, "I have extracted element no. 85, eka-iodine, from its ore, hitherto unknown, and with a possibility of extracting 87 from it in the future!"

Following this astounding statement that great hall of great men reverberated with tumultous applause, and pandemonium followed. Perplexity, amazement, and excitement, were writ upon every face as they animately discussed this remarkable discovery. The chemist's dream come true—the completion of the table of elements; such thought arose in many

When at last silence was restored, Professor Haupt, the only calm one of that vast assemblage, resumed, "Gentleman, I must again ask for your patience. With the assistance of a certain young man, a further great achievement resulted. He is, I am sure, known to some of you, Karl Marienfeldt, son of the late Professor Marienfelt, a distinguished member of this clique. He came to me after the death of his father and since then I shall never regret my using alone his meritorious assistance and companionship. I must here inform you that 85 had been discovered a few years ago, but I did not wish to disclose it to the world until I had further facts about it. My one ambition, after its discovery, was to combine it chemically with one or all of the noble gases. I was led into this track of experimentation by the discovery that it was a reversion to reactivity in the halogen family, being more active than flourine in many respects. In this I was practically at a standstill, until Karl's young and active brain made new suggestions. However, I cannot define, for I do not know where his suggestions began and mine ended, as we worked in perfect unison, sometimes for hours without speaking a word.

"We used a large, evacuated tube at one millionth of a millimeter pressure and ran small quantities of the six rare gases through it, energizing them by means of the ten million volts at our command. This incidentally rearranged the internal composition of the molecules of the gases, among other things making them diatomic, giving them the same molecular construction as the active gas oxygen. Then, passing these reconstructed rare gases (all six in the hope that one would be successful) over a porcelain boat encased in a silica combustion tube, heated to red heat and containing element 85, we waited with bated breath for results, I can still picture Karl, his face aglow, not only from the light that radiated from the combustion tube, but flushed from the excitement within him that made him breathe with gasps, as if in physical exertion. I do not know how I appeared, but it must have been the same, for a tension of conflicting thoughts gripped my mind and body. Racing madly through my brain was the fear of destruction as well as the hope of success. Our eyes smarting from the peculiar rays from the glowing element, we watched and waited, expecting we knew not what, when a sudden, subtle change in color of the heated substance in the boat caused us to bend forward in anticipation of a reaction. Such a blinding radiance flashed in our unshielded eyes that we staggered backward, as if mortally wounded. Recovering I rushed to the switch and turned off the power. With blinking eyes we waited for the mass to cool, silently wondering as we looked at each other what new, inconceivable compound lay before us.

"It was a compound resembling glass in physical appearance, hard, but not brittle and perfectly transparent, glowing with a bluish light at all times. In examining it after the experiment we discovered that it possessed such inexplainable refracting power as to astonish us. Deciding therefore, to use it for telescopic purposes, we repeated the experiment, making a specimen two feet in diameter. In examining the gases which issued from the end of the combustion tube, we were astounded to find all the gases there except radon. If you will notice in the atomic table radon occupies a position between 85 and 87, being No. 86. At present I am not in the position to explain the significance of this statement. But no doubt it has some bearing on the problem.

"With unceasing labor we produced a perfect lens as far as shape goes and fitted it into a telescope of our own design.

Completing this early one afternoon we hardly found the patience to wait for the darkness to fall.

"So the moment came that meant so much to us, for I was certain it would prove to have phenomenal magnification. But gazing through it we were doomed to such disappointment as can rock the foundation of the senses.

"Then followed days of ceaseless toil, trials and failures, until we worked upon the theory that a reflecting surface would be necessary to render an image. For this purpose we employed highly-polished sheets of every metal procurable, and, also glass. The latter we found, was peculiarly etched after use. All of these we tried until we were on the verge of despair. One day Karl, without the slightest reason, suggested the use of mercury (which he had tried before) in motion circularly. Placing this in position at the lower end of the telescope we connected it to an electric motor which revolved in such a way that its surface was extremely smooth. I then trained the telescope upon the various portions of the heavens.

"Previous disappointments had calloused us to its sharp pangs, and we accepted this latest failure undisturbed. The mirrored surface remained unbroken! Karl, then attempting it, turned away at last as I had done, and suddenly arising with expressed disgust, accidently struck the telescope with his shoulder, thus turning it in a quarter circle. He was about to leave when a bluish light flooded the disc of revolving mercury.

" 'Look, look, professor,' " he called to me across the laboratory. Reaching his side as hurriedly as possible I noticed his face portraying great astonishment and followed his staring eyes—

"Gentlemen! upon that revolving disc of mercury was reflected, in proportion to its relative size, what would be a scene of about two thousand square feet of some planet so plain that it seemed I was merely looking out of one of my window-panes!

"Following the direction in which the telescope was pointed we found it to be trained upon the brightest object in the earthly sky, the planet Venus. Therefore, the newly-discovered element No. 85 shall be named VENUSINE, as Karl and I agreed between us. The ore from which I extracted element 85 must have been the remains of a metorite from Venus, and in some inexplicable way this element is related to, bound up in Venus, and in Venus only."

Thus ended the epochal-making speech of Professor Johann Haupt.

It is an interesting suggestion that the list of elements should be filled up by elements from another planet.

SNOW, cold, and Yuletide spirit heralded in the month of December.

Up the almost snow-obliterated path, that twisted to the crag's summit, were toiling a party of men in single file. The majority of these consisted of the committee chosen by the Clique of Science to accompany Professor Haupt. Those remaining were personal servants of the scientists and some few packing the supplies. Several feet ahead of them the old professor was leading the way, his merry, twinkling eyes expressing the happy thoughts within him.

Sighs of relief floated up in the cold December air amidst clouds of exhalations when the summit was reached.

The professor was some hundred feet ahead of the rest, who were following him in the knee-deep snow, when he reached the door of his home. Upon ringing and waiting several times and receiving no answer, he turned to those coming up, saying, "Evidently Karl sleeps late when his master is away." Those addressed smiled, for it was close to noon. So drawing his own latch-key, he unlocked and opened the door.

The room they entered had more the appearance of a lounge than a reception room, for it was exceptionally large. It contained comfortable lounges and deep-upholstered chairs to accommodate more than the party who entered. They all seated themselves and cheerful conversation buzzed as they felt the glowing warmth of the huge electric coils.

Upon Professor Haupt asking and receiving permission, he detailed some of the servants to a most-modernly equipped kitchen, requesting them to prepare hot tea and coffee. The remaining attendants unpacked bundles and took care of wraps and over-shoes. This completed to his satisfaction, the professor excused himself from his illustrious company, saying, with a mischievous smile, he was going to awaken his negligent assistant, and left them through a door that evidently led to the sleeping quarters.

Ten minutes had elapsed when all attention was drawn to the sliding doors that led from the laboratory; for these were violently thrust aside, and from their gaping space a stinging sweep of cold air fell upon those assembled in the reception room. Professor Haupt staggered into the room, his face portraying to them some ghastly misfortune. Several rushed to his side, perceiving his faintness, and gently led him to a lounge.

Some managed to stammer after the professor had been seated, "What has happened, Sir?"

Staring at the floor before him he spoke slowly amidst the breathless silence that ensued, "A most singular—I am afraid, a most dreadful—thing has happened during my absence." His snow-white head sank upon his clenched hands (one of which clutched a sheet of paper) as if trying to shut out some appalling scene before his gaze.

He rose after several moments of silence, once more the calm, masterful scientist. Standing erect with his arms behind his back he addressed them with a completely controlled voice. "Gentlemen, I think you can get a more distinct idea from what I shall read to you of what has happened, than from any guess or condemnation that I might make on this matter," and as he finished he unfolded the paper that was clutched in his hand.

The company were deadly silent in anticipation of what they were to learn.

Some of the servants at this moment entered with trays of steaming tea and coffee, but it was to grow cold in their hands as they listened spellbound to what Professor Haupt was beginning to read.

"DEAR Professor Haupt: Two days went by after your departure when I found myself overwhelmingly oppressed by loneliness, despite the fact that I was comfortably seated in the study and listening to a musical program from some far-away station. It seems as if it was born out of the celestial strains of that captivating music—that peculiar idea that came seeping into my consciousness, as if from a mightier intelligence. It drove me on—urged me on—beyond the power of my own will to combat it.

"I rose mechanically and entered the laboratory. There I worked feverishly night and day for weeks, with but a few intervals for rest and sustenance. I was drawn irresistibly to the cabinet where reposed the bottles holding element 85 and the black powder containing element 87.

"Then upon my mind was borne like a flash the urge to experiment with the two in conjunction. While looking for a porcelain boat which you kept in the glassware cabinet in the southwest corner of the laboratory, I noticed for the first time the door, hidden and almost imperceptible behind the static machine, which door I had never had occasion to use. Finding no porcelain boat among

the paraphernalia in the cabinet, I thought perhaps this door led to another storeroom, and not wanting to recross the laboratory, opened it. Never did I expect to see that which presented itself to my eyes. Whatever plans you had in mind for space exploration in this well-built one-man rocket, I shall change them. It occurs to me now that your intention in hiring me may have been to have me pilot your rocket into unexplored space. As it chances, so it will be.

"Duplicating our experiment whereby we combined radon with venusine, to get the super-lens of our telescope, I made a slight change. I added a pinch of the black powder which you had labeled "87 possible." The reaction which followed was identical with the original one, and I took the precaution to wear smoked glasses. The reagents were identical, except for the small quantity of "87 possible", and the reaction was identical, but the product was different, suggesting to my mind a catalytic reaction. Examining the residual gases, I found radon and helium had combined with 85. Helium had been caused to enter the reaction by the catalytic action of element 87!

"After the combustion tube cooled I saw a glowing bluish substance resting lightly against the *top* of the tube. The significance of it burst upon me. I had here a substance which defied gravity! Taking the substance from the tube; I noticed its upward pull about equalled the pull of a toy-balloon filled with hydrogen. This dampened my spirits somewhat, for this pull would hardly free an object from the earth's attraction. I felt I was near to answering that most puzzling of all scientific questions, 'What is gravity?'. The rest of that day I sat in a brown study, day-dreaming and attempting to fathom the reason for this strange compound's property of resisting gravity, it's being a solid mass.

"Electricity and gravity are related, as is shown at various times in scientific research, especially in that dealing with inter-atomic structure. Electricity is defined as the flow of free electrons of the outer shells of atoms following a suitable conductor. Gravity, in turn, must affect mainly the protons, for an atom's weight rests in the nucleus. You know all this, professor, but what I am trying to show is a connection between electricity and gravity. As I reasoned the new compound must have acquired its curious property of gaseous lightness from a reaction in the nuclei of the atoms. Now, as you know, all nuclei made up of protons as far as weight is concerned, except those of hydrogen gas only, have electrons, in them to balance the outer shells' negative charges. Hence the reaction may have been electrical in nature, somehow transforming the protons (through the agency of the accompanying electrons) and giving them a new property of losing weight, or defying gravity pull, the pull of neighboring atoms. Continuing on this line, I gradually came to the conviction that an electric current ought to further the work started by the catalytic action of eka-caesium, No. 87, contained in minute quantities in the black powder.

"Accordingly, next morning I clamped the hard but non-brittle, semi-transparent solid down and successively subjected it to larger and larger electric shocks starting with 100,000 volts. Nothing happened, even after 590,000 volts were loosed. The crackling, lace-like sparks merely played over the surface of the substance. Plugging in the multiple transformer at 600,000 volts, I placed the two wires sealed in large glass insulators at opposite ends of the object. As my finger poised above the key of the circuit, I wondered why I kept up this discouraging experiment, and found I had no satisfactory answer, except that some invisible power or urge impelled me onward. I was aware only of a loud noise as I

depressed the key, and then all was black. I must have been unconscious only a few minutes and revived to find a cold draft chilling me. My eyes stared straight into the blue vault of the heavens through a good-sized hole in the roof marking the passage of the vise and the compound.

"Professor Haupt, this new compound energized by 6,000,000 volts becomes a substance entirely freed from the earth's gravitation, and would be able to lift enormous loads due to the speed with which it would be thrown from the earth by centrifugal force, amounting to about 1300 feet per second in this latitude. When you see the hole in the roof, and the part of the bench to which the vise was attached that was taken along by the compound, you will realize the enormous force of such a gravity-freed substance.

"Rather than being disappointed by the loss of the compound, I was heartened that my theory was correct, in which I had assumed electricity would further the catalytic action of 87 in the combination of venusine with radon and helium. In fact, professor, I have come to the conclusion that these combinations that you and I have made with venusine and the rare gases are not chemical in nature at all, but purely electrical. For instance, in chemical synthesis of inorganic binary compounds with the elemental constituents, the volume of the product seldom increases out of the proportion it should, whereas in making our super-lens, we used 5 grams of venusine and several liters of radon to get a *solid* plate two feet in diameter. The only comparison to this is the burning of mercurous thiocyanate, whereby a voluminous ash is obtained, which is however porous and easily crumbled. Then, too, chemical combination in the rare gases is impossible, for they have no valence.

"I set about immediately to make a sufficient quantity of the new compound to propel your rocket through space. I am sorry this necessitated my using all of 85 and 87 which you (and the world) had of them.

"A lump of about a liter in volume rewarded my efforts. I carefully rigged up a circuit, leading the current of our 10 million volt lightning generator to opposite sides of the outer shell of the rocket. The lump of the floating substance I suspended at the nose of the rocket, inside, and electrically connected to the outer shell of the rocket. It will receive more than the necessary 600,000 volts when the circuit is closed. A time-clock out in the laboratory will close the circuit when I am all ready to leave.

"I don't know why I have done all this. Some unknown, unseen power has led me on, and I find myself prepared to leave this earth.

"Professor, as you know the construction of your rocket, I shall have no fear of lack of oxygen or warmth. Your ingenuity has also set aside any fears I may have entertained of combating the conditions of inter-stellar space. And it seems to me at present, professor, that you did lack but two things in this marvellous rockets of yours: a pilot and means of propulsion. It seems I am the first and have solved the second.

"All is in preparedness; I am properly dressed and when I lay down my pen, I shall leave this world forever. There can be but one destination, for, as you know, venusine has some forceful connection with the planet Venus, and even as the metorite in past ages landed upon the earth, so will my rocket return with the gift of Venue. Farewell, my dear professor and friend. I am leaving—."

(signed) Karl.

MERE words cannot describe the thoughts and emotions of those who heard the disclosure of Karl Marienfeldt's letter.

am sorry this used all of 85 and 87 which you (and the world) had.

The impressive communication expressed the hope of effecting a triumuh of science,

Night descended and the snow-capped peaks of the Tyrols stood sentinel through the wintery silence. Clearness and coldness seemed to intensify the silver lustre of the stars above. A rare night—

The hour had arrived for that distinguished committee of scientists to make complete by witnessing the wonders of the Venusine Telescope, the triumphant hour of Professor Haupt. Dressed warmly against the cold draft of air that descended from the torn roof above into the laboratory, the scientists gathered about the professor as he went through the preparations necessary to put the telescope into working order.

Exclamations of amazement fell from the lips of these famous men as they viewed scene after scene of the planet Venus, 27 million miles away. At various times the mist which covers the surface of the planet was broken to reveal scenes of trackless jungles, cities that towered high into its atmosphere, great cylinder-like air ships that traversed these spaces at terrific speeds. Although the scenes were in reliefs of various shades of blue, withal, they were very distinct. As to its inhabitants nothing can be said, they being too small to be seen individually.

Professor Johann Haupt was hailed as the greatest scientist of his day, yet that venerable old man was not as happy as most would think, even though the world was at his feet in admiration.

Hourly he toiled, for out in that vast, infinite space upon the planet Venus, somewhere was Karl Marienfeldt; somehow, sometime—in the years to come—he felt that through his efforts to would see or hear of Karl. To that end, with undying hope, he labored.

Who knows what the end would have been had not the elements 85 and 87 been so rare that all the world had of these was contained in that one disc of venusine in Professor Haupt's miraculous telescope?

THE END

IN THE NOVEMBER ISSUE

We are very glad to introduce two new authors to our readers.

"Land of Twilight" by Robert Page Preston is an interesting new serial.

H. L. G. Sullivan in his story entitled "The Moon Waits" gives a completely new turn to the science fiction of outer space.

Through the Andes

By A. HYATT VERRILL

PART II

In this second part of the story the reader should observe the way in which the characters of the members of the party are pictured. The author shows great skill here with a Southern negro and a Western cowboy and a typical English sporting man as objects of his description. The reader must not miss either the little Malay, who is a marvel in his way.

What Has Gone Before:

A very interesting party of travelers, one bent on exploration, another one a great hunter, and a Western cowboy, with their attendants, start into the wild region of the unexplored area of the Andes. In the party there is an attendant a negro and a Malay, the latter in the service of the great hunter. They progress quietly until reaching some defiles where they are attacked by concealed brigands, their pack animals are dispersed with their drivers, there is some loss of life among them, but they give a very good account of themselves, killing some of the brigands. What is left of the party, the five, who have been mentioned above, manage to go ahead on their way and have a strange beginning of adventure.

There is an inscription on the rock which none of the party can read, but which is familiar to the chief of the expedition, an accomplished archæologist. A further attack upon them is frustrated by the strange little Malay, who climbs up the face of the rock and drives his serpentine dagger or kris into the brigand who has been attacking them from the height of an almost inaccessible natural bridge.

CHAPTER IV

The Valley of Chameleon Men

THE spot where we stood was a mere shelf of rock, perhaps ten feet square, formed by a shallow cave or hollow in the cliff, and evidently partly natural and partly artificial. Tool marks were plainly visible upon the surface of the stone, and holes for fastening the cables of the ancient bridge had been cut through two projecting ribs on buttresses of rock. On the opposite side of the cañon we could see similar holes, and fragments of rotted cables, beside the opening of the narrow defile leading into the mountains. And from the rocky platform we had reached at so much risk, a narrow trail wound around the face of the precipice. I say trail, but it was not worthy of the name, for it was merely a crack or crevice, a fault in the strata, that had been roughly smoothed and in places widened by human hands. No doubt an Indian or a llama would have found it an easy and safe pathway; but to a white man it appeared woefully narrow, and perilous in the extreme, and Sam shuddered and almost wept at the thought of treading it. But at last, after much urging, a deal of swearing, some sharp commands, and a threat to leave him behind if he didn't brace up, we got him started.

It was a nerve racking, a terrifying experience to walk along that ten-inch footway with the sheer precipice above, the perpendicular cliff below. In many places the rock overhung and we were compelled to stoop low. In other places bits of rock had fallen from above, and with bated breaths and tingling toes we picked our way over the débris, fearful that a misstep or a loose stone might hurl us into space. And in more than one spot the edge of the shelf had crumbled

The creature, for it could scarcely be called a man, was barely three feet in height. The head, out of all proportion to the body and limbs, was elongated, sloping upward from the monkey-like face to a high-peaked crown covered with a mop of brownish-black hair.

away, leaving such a narrow ledge that we were forced to place our backs against the wall and with outstretched arms edge inch-by-inch along the cliff with toes projecting over the abyss. Karen alone appeared oblivious of the danger of that nerve-trying trail. As easily and nonchalantly as though it had been a broad highway he trotted along, carrying the guns, as sure-footed and immune to dizziness as a mountain goat or a structural steel worker.

"Oh, I say!" cried Saunderson, after we had been following the awful pathway for half a mile or more. "What happens if we meet other chappies coming along? Deucedly inconvenient, don't you think? No traffic signals, and all that sort of thing."

"Reckon you push 'em off if they don't push you off first," said Red. "This is a one-way street, Mister."

"Not much chance of meeting anybody," I told them. "No human being has been this way for hundreds of years, in my opinion."

"Can't precisely be called 'the broad highway'," observed Saunderson, as we came to a particularly bad spot.

But all things have an end, and at last we came suddenly and quite unexpectedly to a gap in the cliff with a flight of rougly-hewn stone steps leading upward.

"MUST be the famous 'golden stairs'!" exclaimed Saunderson, gazing upward. "Seem to lead to the sky, positively."

"Wha la! T'ank tha good Lord we t'ru wif *that*," exclaimed Sam. "Chief, Ah don' never set me foots on such road again an' no mistakin' 'bout it. No, sir, Chief, Ah remains right here an' die 'fore Ah does so, Chief."

"Like hell you would," scoffed Red. "Soon's ever we went off an' left you, you'd come lopin' along after us like a houn' pup. I ain't sayin' as I'd choose that trail for a evenin' stroll, but 'tain't nothin' to starvin' to death or bein' left alone up in this country what God forgot."

As the others had been speaking I had been moving about, examining the evidences of man's ancient handiwork. Here and there were traces of carvings or sculptures, so badly eroded by the elements through countless centuries, as to be scarcely distinguishable, and in one spot was a little niche with sculptured human figures on either side. Apparently the place had been used as a sort of shrine by travellers along the route. As I raised myself on a fragment of rock, the better to peer into the opening, something was dislodged and fell with a tinkling sound to the stones. An ejaculation of mingled surprise and delight came from my lips as I picked it up. It was a metal disk about two inches in diameter, and with a perforation near one edge obviously for the purpose of suspending it by a string about the owner's neck. And by the dull brownish-yellow color of the pendant, and its weight, I knew instantly that it was gold. But I scarcely noticed this at the time, for my interest was focused on the embossed design upon the surface of the disk. A design showing a figure of the sun with a humanized jaguar head in the centre, and around the edges the same symbols that we had seen cut into the rock above the natural bridge and on the cliff where we had clambered up to the ancient trail.

"Oh, I say, what have you found?" queried Saunderson, strolling over to where I stood examining my discovery. "'Pon my word, it's an amulet!" he exclaimed as he peered over my shoulder. "Some chappie must have dropped it here. Rather a jolly bit of junk, really!"

"More than that—priceless," I said, handing it to him. "Do you see those

characters They would tell the whole story, if—"

"By Jove it's gold!" he ejaculated. "Oh, I say, let's search about a bit. May be treasure-trove here, don't you think?"

"No, I do not," I told him. "This was lost; fell from some person's neck when the cord wore through. It's a wonderful specimen—unlike anything I've ever seen. And as far as I am aware the only Incan or pre-Incan object bearing an unquestionable inscription."

"LOOKS like money to me," declared Red, who had joined us. "Mebbe them old Injuns what used this trail had a store or a lunch counter here and used these things for buyin' grub. Me, I wish to blazes there was a hot dog stand right here this minute. I'd give more'n that's worth for a couple of franks an' a dash of mustard or a hot tamale, right now."

As we reached the topmost stair we found ourselves upon the summit of a high ridge. Behind us vast peaks soared upward to gleaming, white summits three miles or more in air. To right and left the serried ramparts of the Andes hemmed us in. In the distance stretched a range of lower mountains, while beyond these were still more peaks like a solid wall against the sky. But in the foreground, extending from the base of the ridge whereon we stood, was a green and verdant valley. A valley of grassy meadows and patches of woodland, with the silvery glint of water between the trees, and marvelously beautiful to our eyes after so many days of bare, forbidding mountain sides and dismal cañons.

"The Achcacuna!" I exclaimed. "We've found it! Got into it by accident!"

"I don't reckon them bandits was a accident," said Red. "An' they was what herded we-all into here. Damned if 'taint purty though. An' looks as if there'd be game there. Ain't much danger of us starvin' as long as we stay here. But how the blazes are we goin' to pull up stakes an' get out when we decide to vamoose?"

"My dear man," exclaimed Saunderson, "why weary your brain and shatter the joy of the present by pessimistic forebodings of the future? Sufficient unto the day and all that sort of thing, you know! 'Pon my word, yes! And necessity is the mother of invention, and where there's a will there's a way, et cetera, et cetera! Let your jolly old nut have a vacation, my lad. Here we are and with a perfectly ripping little park to run about in and hunt the red deer in the merry greenwood. By Jove, yes, and we may even find nymphs or lovely woodland sprites, and you can play satyr—I say, Doctor, Red *would* make a perfectly ripping saytr, don't you think?"

Red couldn't suppress a grin at Saunderson's irrepressible nonsense. "More chances of findin' a bunch of lousy hostyle Injuns," he muttered. "An' me, I ain't pinin' to play with no squaws, hostyle or 'totherwise."

Saunderson chortled with glee, and slapped the Texan on the back. "You've missed your vocation, Red, my lad!" he declared. "Should be on the stage of a music hall, absolutely yes! You're better than Will Rogers, really! But if there be nympths or dryads in yonder woodland dells, far be it from me to disappoint them should they desire a frolic. By the rood, yes! Putting aside the weapons of the chase I will take up the pipes of Pan. Think you not that I will prove a satyr worthy of the name?"

Placing an imaginary pipe to his lips, he began dancing and prancing about, until Sam collapsed with merriment and even Karen's parchment-like features wrinkled in a grin.

"Well, don't go a layin' down them

guns an' doin' no rumba with the girls, afore you shoot enough meat for grub," said Red. "Long as I can eat, you're right welcome to play the goat with Injun squaws or nymphs or any other skirts. But you'd better watch your step, Mister. Most Injuns what I've run acrost ain't partial to white men monkeyin' around their women."

"Come on, boys!" I exclaimed. "Let's get down there before it's any later. I don't see any signs of inhabitants—no villages, no houses, no cultivated land, no smoke. But there must be game, and I feel as if I could eat steadily for a week."

"Righto!" agreed Saunderson. "But we can't clambor down here, you know. It's a sheer drop of a hundred feet at least to that débris-slope below. And—" he added as he peered over the verge of the cliff—"the bally old hill appears to be the same as far as one can see in either direction. I say, do we jump or fly down to the valley?"

Saunderson was right. The hill upon which we had debouched after ascending the stone steps from the cañon rose in a sheer wall above the valley.

"Wish to blazes I had my rope," muttered Red. "'Pears like to me we come to the end of our trail. Can't go back an' can't go for'ard. Afore I'll starve to death sittin' up here I'll jump off an' have done with it."

"My dear man," exclaimed Saunderson, "Why attempt to commit quite justifiable suicide in this spot? You might not be killed you know. Go back in the cañon by all means and make a certain and clean job of it, absolutely." As we had been speaking we had been wandering aimlessly along the rocky hilltop, and Karen—who always reminded me of a faithful and inquisitive spaniel by his actions—had hurried on ahead, running this way and that, pausing now and then to peer over the precipice as if calculating the possibilities of climbing down.

Suddenly he halted, stooped down and the next instant vanished.

"GOOD Lord, what's happened to Karen?" I cried, breaking into a run. "He must have fallen into a hole or crack."

"Confound the beggar," exclaimed Saunderson, "he had my guns. Can't afford to lose those, you know."

But before we had taken a dozen strides the Malay reappeared waving his arm and shouting.

"By Jove, that *is* a bit of luck!" cried Saunderson. "Says he's discovered a rope!"

"Ridiculous!" I declared. "How could there be a rope here? He must have found an old root or vine or something. I—"

But my words were lost to Saunderson, for he had sprinted at Karen's announcement and, reaching his servant's side, had vanished together with the Malay. A moment later we came to the spot and the mysterious disappearances were explained. Cut into the rock was a sort of well with a flight of steps leading downward, and from somewhere below we could hear Saunderson's voice. Followed by Red and Sam, I leaped down the steps. In the opposite side of the well was an arched passage ending at the face of the cliff. And bending over some object on the floor of the tunnel were the two men.

"Oh, I say!" cried Saunderson when he looked up at my approach. "Karen *has* made a discovery!"

I hurried forward. Saunderson was busy unrolling what at first glance appeared like a bundle of old chains.

"Found it tucked away in that little niche," he explained. "Called it a 'rope,' the beggar! But the jolly old thing's a ladder! Here, Sam, give me a hand, old

chap, and we'll be popping down into the valley in no time."

There was no question that Saunderson was right. It was a ladder formed of chains and metal rungs, and Red and myself, as well as Sam, lent a hand to untangle it.

"Damned funny it ain't rusted none," observed Red, as he worked.

"Can't rust, you know," said Saunderson. "It's made of bronze."

Drawing my knife I scraped away some of the black sulphide that covered the metal. "Not bronze," I told him—"silver!"

Red straightened up with a jerk. "Is that straight, Doc?" he demanded. "Holy catfish! If this thing's silver it's worth a heap of good money. Must weigh near half a ton."

"Very nearly," I replied, "and worth about five or six thousand dollars as bullion. But not worth a cent here. You'd have to carry it out and you'd need a motor truck or a string of llamas to do that even if there were a good road. I—

"My dear man," exclaimed Saunderson, "it's worth a million to us here. It's absolutely priceless. It has saved our lives, actually. Righto! It's all clear. Now to drop it over the edge and down we'll go."

"How you goin' to hitch this end to hold it?" asked Red. "Ain't nothin' here to tie to."

I was examining the contrivance and I glanced up. "I think we can solve that problem," I told him. "See these hooks on the end of the chains? I think we'll find eyes or holes to receive them if we look about."

"HERE they is, Chief!" announced Sam, who had been peering out over the valley.

Just within the opening were two metal bars set firmly in the rock, and hooking the end of the ancient ladder over these we lowered it down the face of the cliff.

"Better send Karen down first," I suggested. "When he reaches the bottom he can hold the lower ends steady. We'll each have to carry a gun."

Five minutes later we stood in the valley beneath the cliff.

"Well, that's that," observed Red as he examined his beloved six-guns. "Now if we don't run acrost no hostyle Injuns, I reckon we'll be sittin' pretty for a spell."

"Not much need to worry over Indians," I declared confidently. "If there are any here they would have seen us coming down and would have appeared by this time. Let's get started. You'd better go first, Saunderson, so you can shoot anything edible that appears."

"And don't you go missin'," Red admonished him. "My stummick's that empty I can hear the two sides of it knockin' together every step I take."

We had not gone two hundred yards when a small deer sprang from its bed in the low brush, and Saunderson bagged it with his first shot.

"Looks like we was goin' to eat," observed Red. "How about makin' camp over beside the creek, Doc? 'Pears to me we all want a mighty good rest afore driftin' on, an' a good feed."

"And a jolly good bath, too!" declared Saunderson.

"Good idea," I agreed. "We're in no hurry, and this is as good a spot as any."

A dip in the clear cool water of the stream, and a satisfying meal of broiled venison made us feel like new men. And it was pure delight to rest there under the trees with greenery on every side, with birds chirping and singing in the thickets, and squawking parrots winging overhead, while ever in our ears was the musical tinkling of the river.

"I ain't never felt no more peaceful-like nowhere," remarked Red as he stretched himself on the grass and yawned contentedly. "If I only had a few more plugs of tobacco I'd feel like this was pretty plumb near Heaven. I—"

"Perfectly top-hole!" exclaimed Saunderson. "Only one fly in my ointment, as one might express it. My supply of tobacco is beastly low, by Jove!"

I laughed. "So is mine," I said. "But doesn't it strike you as a queer bit of psychology that we are only thinking of that deficiency now? All the time we were in the cañon it never occured to us. However, if we find Indians they probably will have tobacco."

"Reckon we won't need it—after we meet up with 'em," muttered Red.

"My word, Red my lad, you *are* a confirmed pessimist," Saunderson told him, "Don't you ever look upon the bright and cheerful side of anything, really?"

"I dunno," replied the Texan. "I done so once an' damn near got killed 'cause of so doin'. Sence then I've been lookin' for trouble. If you get the idea everything's goin' to be on the up-an'-up, and things break wrong it's mighty disappointin'. But if you're expectin' trouble an' things break 'tother way round, why it's a damned pleasant surprise."

"Your philosophy is past my comprehension," declared Saunderson. "But—" with an assumed sigh—"there may be something in it. Yes, by Jove, I believe there is. If I hadn't hoped to meet wood nymphs in this dell I would have chortled with joy when they appeared. But because I looked forward to a frolic with the darling creatures, and none have greeted me, I am in the depths of despair. I—"

Red half rose and shied a stick at the other. "Thought you was along for to hunt game, and not to chase skirts," he said.

Saunderson grinned. "My dear man," he exclaimed, "are you not aware that nymphs in this dell I would have distinctly do *not* wear skirts? I—"

His sentence was cut short by the arrival of Sam, who had been bathing a few rods down stream, and now appeared, a dripping black figure, wild eyed and terrified.

"WHA la!" he cried. "Ah see a jumbie, Chief! Ah see a jumbie for true!"

"Reckon he seen one of your girl-friends, Mister Saunderson," grinned Red. "Mebbe they're lookin' for you. Better go meet 'em afore Sam gets ahead of you in that Satyr stunt. If—"

"What do you mean—a jumbie?" I demanded of Sam. "Who or what *did* you see or thought you saw?"

Despite Red's bantering words he had leaped to his feet, and with hands resting on his revolver butts he was moving cautiously towards the river.

Sam's teeth were chattering so he scarcely could speak. "Ah-Ah was comin' out tha water when Ah see he," he stammered. "Ah see he standin' on tha san' beach peerin' at me, an' Ah peer at he, an' whilst Ah peerin', Bam! he gone, Yaas, sir, Chief, he clean gone like he blow up like to soap bubble. Tha' wha' he do, Chief, an' tha' the truf. An' he jumbie, he sure jumbie, Chief, fo' he green, he all green like parrot. An' Ah scairt, Chief, Ah sure am scairt, an' Ah not stop to put on me clo's, but Ah jus' run. An' look me here!"

"Extraordinary!" exclaimed Saunderson. "A green jumbie! My word, but I *must* bag that fellow!"

"Utter nonsense!" I declared. "Possibly you saw an Indian, Sam—though I doubt if you saw any human being—and he may possibly have been clothed in green. But if he vanished it was

when he ducked into the bushes when you weren't looking."

"By Jove, I don't wonder he vanished —when he saw Sam *à-la*-nudist!" said Saunderson, as we followed after Red, with Sam fairly quaking with fear in the rear.

"Don't see no signs of hide nor hair of no jumbie nor nothin'," Red announced when we reached the spot where Sam had seen his "jumbie." "Reckon Sam's been seein' things. If—"

At this instant Karen said something in a low tone to his master.

"I say," ejaculated Saunderson. "Karen says there *has* been a man here. Found his tracks over wonder in the sand."

"Didn't I tell you we'd be runnin' acrost hostyle injuns?" growled Red.

"And didn't I suggest dryads?" grinned Saunderson. "No more evidence of one than of the other. If the beggar had been hostile he would have attacked Sam. Probably the chap's frightened out of his wits at finding us here. Must have thought he'd seen a devil when he saw Sam naked."

"No, sir, Mister Saunderson," protested Sam. "He debbil hese'f. Ah don't 'fraid Buckman, but Ah 'fraid jumbies, an' Ah know jumbie when Ah see he."

"Really! In that case, my boy, will you kindly describe the ear marks by which you distinguish your jumbie friends from ordinary Indians?" Saunderson asked him.

BEFORE Sam could reply an arrow sang through the air within an inch of his head. With a terrified yell he turned and ran, and the rest of us followed as the arrows from invisible enemies fell all about us.

"Damned nice, friendly outfit—them dryads of yourn," was Red's comment as, out of range of the savages' missiles, we crouched in an open space with no cover near. "But me, I ain't aimin' to do no frolickin' with 'em, Mister."

Saunderson, carefully adjusting the sights of his rifle, winked and grinned. "My dear Red," he said, "yonder archers are not my friends, but yours. You sought for hostile natives and your fondest desires have been fulfilled. Really, my lad, you should feel quite elated at the accuracy of your predictions."

Red spat. "Hell, let's quit kiddin' an' talk sense," he growled. "Here we be with them Injuns hidin' in the brush an' just achin' to lift our scalps. The question is: how we goin' to get outen here with whole skins?"

Saunderson shook his head. "Red," he said, "your ignorance of the South American aborigines is absolutely appalling. They do not follow the playful custom of removing scalps. Ask the Doctor—he knows! It is far more probable that our Indian friends are aching to lift our heads. As to *how* we are to escape from our present predicament with epidermis entire, that, my dear Red, is a mooted question well worthy of consideration, don't you think?"

"Say, can't you never talk English an' common sense?" demanded Red.

Saunderson chuckled. "Ah, that *is* the question!" he exclaimed. "If I speak the King's English it does not appeal to you as common sense. And if I use common sense I do *not* speak the King's English. So to save time and get down 'to brass tacks' as you would express it, let us all talk American. Now what's your idea, Doctor? Do you—" The roar of his rifle interrupted his words. At its report a chorus of wild terrified cries came from the woods across the stream.

"Reckon you must have got one of 'em," commented Red. "But them screeches didn't sound like there was such a all-fired lot of 'em."

"Probably not," I said. "And as they

have never before heard the sound of a gunshot they may be so filled with terror that they will not try to molest us further. My suggestion is that we keep to the open, out of arrow-shot, as much as possible and try to placate rather than fight these people, whoever they may be."

"You mean make palaver with 'em?" Red queried. "Not me, I don't. How the hell you goin' to talk with 'em when first time you get near enough to holler they'll fire an arrer through you?"

"By Jove, why didn't I bring along a suit of my knightly ancestors' armor!" cried Saunderson. "'Pon my word, the old Dons had the right idea, absolutely, yes! If and when I join another expedition into the Achcacuna I shall come clad, *cap-a-pie*, in mail. 'They carved at the meal with gloves of steel and drank the red wine through the helmet barred,' and all that sort of thing, you know."

"Thought you was goin' to talk United States," barked Red. "This ain't—Hell an' damnation! Gorrimighty, what's that hit me?"

He had leaped up and was staring wildly about, rubbing his left arm, a strange expression of mingled pain and puzzlement on his face.

I stopped and picked up the object which, seemingly, had fallen from the skies and had struck Red a resounding blow just above his elbow.

"SLING stone," I announced, exhibiting the spherical missile. "And made of cassiterite—stream tin—as heavy as lead. If—" A scream from Sam interrupted my words. "Wha la!" he blubbered, "Ah shot! Ah shot, Chief! Ah shot in tha back fo' true. Ah—"

"Down!" I shouted. "Flat on our stomachs! Stuff your hats with grass and pull them low. If one of those stones hits a man's head he's finished."

"Even Sam's?" grinned Saunderson, "Ouch! By the Lord Harry, they *do* hurt! Feel as if I were back in the trenches again. And, I say, where *are* the damnable beggars?"

"Stones is comin' from over in that patch of pa'mettoes," replied Red. "Mebbe if we—"

Saunderson did not wait for him to finish his sentence, but as fast as he could pull trigger, fired a volley of steel-jacketed bullets into the thicket of palm trees.

Yells, screams, strange animal-like cries followed, but no more sling stones fell.

"What we really require is a machine-gun," observed Saunderson as he reloaded his rifle, "or grenades."

"Why not wish for gas projectors or an aeroplane with bombs," I said. "We've got to get out of here while those devils are in a panic, or we'll never get out alive."

"Yeah, an' where we goin' to head for?" demanded Red. "Back up that cliff an' starve to death atop there? Me, I'm for rushin' 'em an' wipin' out as many as we can. May get a few arrers into our hides, or bones bust by these damn rocks; but some of us'll come through. I—" An arrow struck quivering in the ground beside him and Red wheeled and fired with a single motion.

"He won't make no more trouble," he announced grimly. "They're pizen—pizen as rattlers. An' Sam was right. They're green. Painted, I reckon. I just cotched a glimpse of him movin' and let go. If—"

"Good Lord!" exclaimed Saunderson. "Look, look there, Doctor! On that sand bar! Do you see anything?"

As I turned and peered at the spot he indicated, a gasp of utter amazement came from my lips. No sign of a human being was visible upon the pebbly sand

bar, but clearly outlined against the lighter background of beach was a bow, and just beyond it was what appeared to be a dark colored rock.

"What the—" Red's exclamation was drowned in the explosion of Saunderson's rifle.

We stared speechless, astounded. At the report, the bow had flown to one side, a portion of the sand bar had appeared to rise and fall convulsively, and now, as we gazed, we could see a slight motion, like the twitching of a lizard's tail, among the pebbles.

Consumed with curiosity, filled with wonder, and oblivious of our danger, we hurried to the spot. Stretched upon the sand was the strangest creature human eyes had ever seen.

"'Taint no Injun, it's a overgrowed horned-toad!" exclaimed Red.

"Extraordinary!" cried Saunderson. "Is it human or reptilian? 'Pon my word, it's a nightmare, absolutely!"

THE creature, for it could scarcely be called a man, was barely three feet in height. The head, out of all proportion to the body and limbs, was elongated, sloping upward from the monkey-like face to a high peaked crown covered with a mop of brownish-black hair. The limbs, hands and feet were those of a human being, and the nude body was that of a man. But the skin, instead of being brown, black, yellow or of any other color of the human race, was a mottled grayish and so covered with warty excrescences and so rough that it gave the weird being the appearance of a toad and blended perfectly with the surface and color of the sand bar.

"He's human, all right," I declared in reply to Saunderson's question, "A dwarf or pygmy. A horribly repulsive little beast. But he's suffering. Your bullet broke his neck. He'll die in a few minutes, but we can't leave him here to die. Too bad—"

"Reckon it'd be sort of a mercy to put a forty-five through his head," said Red, his hand moving towards his revolver.

"It would," I agreed. "But could you? After all, he's a man. No, he'll be dead in a few moments more. Let's carry him over to the bank where there's some shade."

Lifting the strange freak, who couldn't have weighed over seventy-five pounds, we carried him to the bank of the stream and placed him on the grass. And then an amazing, an absolutely incredible thing happened. There, under our astounded, unbelieving eyes, the dying creature was changing color!

Slowly at first, then more rapidly, the gray mottled skin took on a shade of green, until, within perhaps thirty seconds, the uncanny being was the color of the grass and weeds whereon he gasped out his last breath.

"My God!" ejaculated Saunderson in hushed awed tones. "Oh, my sainted aunt! Is such a thing possible or am I going mad?"

"'Taint possible but we seen it," muttered Red. "He's a damned chameleon, that's what he is."

I grasped Saunderson's arm. "Look!" I whispered.

Peering at us from the thicket were a dozen or more of the strange beings, only their malformed heads and ape-like faces visible.

Red's hand moved towards his holster, but I checked him. "No!" I commanded. "Don't shoot! They haven't made a hostile move all the time we've been here within easy range of their weapons. I don't think they will. I believe the death of this one has saved us. They're probably filled with abject terror, now they have seen one of their number killed by our strange weapons.

Come on. We'll move off quietly and see what happens."

Rejoining Sam and Karen, who had remained in the open space where we had left them, we waited, eyes fixed on the dead body and the thicket just beyond.

"Sssh! There they come!" I whispered. Then, as tiny figures emerged from the patch of jungle and cautiously approached their stricken comrade—

"Good heavens!" I ejaculated. "They're all pygmies!"

"My word, yes, and all green!" cried Saunderson.

"Wha la!" moaned Sam. "They is tha jumbies. We boun' fo' die now, Chief. We—"

"Shut up!" I ordered him. "They're men. Pygmies."

"Shucks," muttered Red, "they ain't no bigger'n kids. I could pick up three of 'em an' carry 'em off with one hand. Say, it makes me sick to think of bein' scared of them midgets."

"Their size has nothing to do with the deadliness of their arrows and slings," I reminded him. "How many can you count there?"

"Eighteen," announced Saunderson.

"Don't make it but seventeen," declared Red.

"I make it eighteen," I said. "If that is all there are we—Hello! They're examining the dead body—looking at the wound made by the bullet. They're—"

WITH a wailing cry the pygmies threw themselves flat on their faces. Then, leaping up, they scurried off across the stream. And once again we felt as if we must be taking leave of our senses or were dreaming, for as they fled across the shingle beach and the pebbly sand bar the impossible green pygmies became instantly gray!

"Jumbies!" chattered Sam. "They jumbies fo' fac', an' tha' tha truf!"

"Jumbies nothin'," exclaimed Red. "They're just human chameleons, like I said afore. An' plumb pizen!"

Saunderson chuckled. "Oh, I say, old chap, what's the Quichua for 'marvels'?" he asked me.

"*Lakatona,*" I told him. "Why ask?"

"Aha, now *I've* made a discovery!" he cried. "That's the name of this place, I'll wager: *Achcacuna Lakatona.* A great multitude of marvels. 'Pon my word, yes!"

"Say, Mister, if we don't start driftin' it'll be more'n a 'multitude of marvels' if we get outer here alive. I'm for hittin' the trail for somewhere else afore them lizard-skinned pygmies get over their scare an' remember they ain't finished us off yet. What do you say, Doc?"

"It's our chance, now," I replied. "No knowing when they may muster up courage to come after us."

"Righto!" agreed Saunderson. "On our way, but whereaway?"

"Towards the other end of the valley," I replied. "No use in turning back. There should be a way out of here other than by way of that chain. If the civilized men who made that passed through here, there must be another exit from the valley. It's up to us to find it."

"Right you are!" cried Saunderson as he shouldered his rifle. "Fine old slogan that: 'Look forward not backward,' and all that sort of thing, don't you think?"

"Me, I'm lookin' front, back and both sides," declared Red. "With savages what can camouflage theirselves better'n a doodle-bug you gotta have eyes like a Injun's an' keep 'em on the job."

CHAPTER V

The Inca's Treasure House

WE marched on across the valley, keeping a sharp watch for lurking pygmies and avoiding the patches of jungle and the thickets as

much as possible. But there was no sign of the strange chameleon men, as we now called them, although we actually stumbled upon one of their villages. I use the word stumbled in its literal sense, for our first warning of the place was when Sam sank into the earth to his armpits. Screaming with terror, he struggled to draw himself free, and as we hurried to his aid, Red and Saunderson suddenly dropped into the ground.

"By Jove there must be aard-varks here!" cried Saunderson as he clawed his way from the pit into which he had fallen. "Never knew the beast inhabited this part of the world."

"Ain't no such critters," declared Red as he heaved himself free. "Just a giant prairie dog's town, that's what 'tis. Damned queer we ain't seen none of the critters, though."

I had been peering into the cavernous hole into which Sam had stumbled. "You're both wrong," I told them. "It's a town, but no four-footed creatures live here. These are human habitations, the homes of those chameleon men! Look here—"

Stooping down, the others peered into the dark underground chamber. The sides and top had been reinforced by roughly-woven twigs and canes, on the floor of the recess were bones and charcoal. At one side were several very crudely-made baskets and several gourd utensils, and stuck in the wattling of the walls were partly finished arrows.

"By the Lord Harry, you're right!" exclaimed Saunderson. "But, my word, what a place to live!"

"Not much worse'n a Piute wickiup or a Navajo hogan," declared Red. "How in blazes do them savages get in an' out? Ain't no doors nor nothin'." "There must be, somewhere," I told him. "Probably a single entrance that is carefully concealed, with tunnels leading to the various chambers. It's like an immense rabbit warren or, no—more like a mole's burrow. It's a discovery almost as amazing as the people themselves. Why, just to have seen those pygmies and this subterranean village is ample reward for the trip. I never dreamed of finding such astonishing ethnological conditions."

"You're welcome to 'em," growled Red. "Me, I'd rather be findin' some place where I can sleep an' eat without havin' arrers shot into me."

"Nobody at home, I assume," said Saunderson, rising and surveying the little clearing, whose surface gave no indication of the strange village beneath. "Isn't it rather remarkable, don't you think, that such beastly primitive beings should possess a knowledge of making fire and baskets?"

"They're not so very primitive," I replied. "Their bows and arrows prove that. They are of a type usually associated with quite highly cultured aborigines. Because they have adopted this remarkable form of residence isn't necessarily proof of primitive conditions. The hogans of the Navajos, which Red mentioned, and the rucas of the Araucanians of Chile are only a degree better than these dwellings, yet the Aracanians and Navajos are most intelligent and even cultured races. What puzzles me is their amazing ability to change color—that and their use of slings."

MEBBE them pygmies shiftin' their color stumps you, Doc, but me, I don't see nothin' so everlastin'ly funny about it. Ain't they plenty of critters does the same? Don't lizards an' tree frogs an' toads an' sech things change color 'cordin' to where they be? An' if the Lord A'mighty fixed it for them to do the same, why the blazes shouldn't He have fixed it for these pygmies likewise? 'Specially, as 'cordin' to my way of thinkin', they ain't much more'n pizen reptyles anyhow."

"'Pon my word!" cried Saunderson, "Red, my lad, you are a never ending source of wonder and a constant surprise to me. Actually you are! I never dreamed you were a philosopher, my boy."

"Ain't nothin' of the sort," declared the Texan, "Just use common horse-sense. What's more wonderfuller about a Injun turnin' color than a damned lizard doin' the same?"

I smiled. "Perhaps you're right, Red," I said. "After all, I don't know as there is any scientific or biological reason why a human being shouldn't change color. It's merely a question of pigment cells being controlled by nerves which react to certain rays of light. But—"

"By Jove, Doctor, I never thought of it before, but do you know this isn't the first time I've seen human beings change color according to their environment."

"What?" I exclaimed, "You mean you've actually witnessed this phenomenon elsewhere?"

"Absolutely!" declared Saunderson. "I've repeatedly seen a perfectly white skin turn scarlet—when a lady blushed!"

"Yeah, an' I'll bet she had a hell of a good reason to—with you around," Red remarked. "Didn't you say how 'twas 'cording to her environment? An' wasn't you that same?"

"Sir, you do me a grave injustice!" laughed Sanderson. "Yet may I observe that never have I seen a young lady blush green at my appearance, as did those savages when they saw you, me lad!"

"Aw dry up," growled Red. "An' come along."

Saunderson, again serious, turned to me as we cautiously picked our way around the subterreanean village. "You said the slings puzzled you," he remarked. "May I ask why?"

"Because slings are not known to primitive races, as a rule," I told him. "Among the American aborigines only the Andean tribes—those who are commonly classed as Incan races, used the true sling of Biblical days. But I think I know the explanation. At some period in the past these astonishing chameleon men have been in contact with the highly civilized pre-Incan people. Unquestionably this valley was traversed by the pre-Incans, and very probably by the later Incans. The chain ladder proves that. Whether these pygmies were hostile or friendly with their civilized neighbors makes no particular difference. In the one case they doubtless acquired a knowledge of the sling when they found the weapon on the bodies of slain pre-Incans; in the other case they were probably taught their use. All of which goes to prove—"

"HEY, look here, Doc," Red shouted, interrupting my discourse. I hurried forward wondering what the Texan had seen.

He was gazing fixedly at the ground before him. "Am I seein' things or is that there a cartroad?" he queried as I reached his side.

"My sainted aunt! It is a road, absolutely!" cried Saunderson before I could recover from my surprise sufficiently to speak.

There was no question about it. Extending across a little open space was a section of paved roadway about ten feet in width. I dropped to my knees to examine it. "Pre-Incan," I announced, as I recognized the typical form of the cut stones. "Boys, we're on the verge of big discoveries, I believe." "Hurrah! We'll follow the King's Highway to Lunnon Town!" cried Saunderson. "More likely the road to nowhere,", muttered Red. "Same an' all, I reckon it does go to prove they's a way outen this valley up ahead somewhere, like you said, Doc. An' the valley's gettin' narrower. Looks like we

might be comin' to another cañon or somethin'."

As Red said, the valley was decreasing in width. Where we had descended by the chain ladder it had been fully four miles wide and now the mountains on either side were barely a mile apart, and were rapidly converging. As we moved onward along the centre of the now narrow valley, we were following the ancient road which here and there was visible.

"The jolly old highway must lead somewhere," remarked Saunderson, "even if it began nowhere in particular. Never knew a road to lead from nowhere to nowhere, you know."

"Unquestionably it does," I agreed. "I expect to find extensive ruins—probably a ruined city, at the end of the old road."

"An' I'm hopin' to find a way out of this country," said Red. "Me, I'm pinin' for two things—a-plenty of good plug tobacco an' a town of Christian white folks. I—here's your old ruins, Doc!"

The valley had narrowed to a mere defile between the precipitous mountains, and stretching across the bottle-neck was a massive stone wall. That it was very ancient was obvious, and the enormous stones of which it was built, their numerous angles and the mathematical precision with which they were fitted together, marked it as of pre-Incan workmanship. Unquestionably, it had once effectually barred the pass, for no human being could have scaled its slightly-sloping, smooth surface that stretched upward for fifty feet above the earth; and half a dozen men, protected by the ramparts on its summit, could have held the narrow gateway in its centre against an army. But the massive gate that once had closed the opening had crumbled to dust ages ago, no guard or sentry challenged us, and treading the smooth pavement of the forgotten road we passed through the brush-choked portal, above which were carved the characters that were on the golden disk. Beyond the wall the mountains receded on either hand, and we found ourselves in a second and smaller valley. Flocks of wild fowl rose with frightened cries as we moved onward. Herds of deer and wild alpacas browsed on the lush grass. Gaudy macaws and parrots screamed raucously at us from the tree tops, and the balmy air was filled with the scent of wild heliotrope and jasmine. Everywhere, half-hidden amid the weeds and brush, were remnants of stone walls, buildings and houses. As we proceeded, the ruins became more and more numerous, until presently we were passing through what once must have been a good sized city. But even the ornately sculptured facades of the ancient buildings and the carved columns that rose amid the vines and trees could not draw my attention from what we saw ahead. Far up on the steep mountainside was an immense fortress, its stupendous walls and battlements cut from the living rock, which had been hollowed out until the cliff overhung the fortress, so that the latter filled a gigantic niche.

"BY JOVE! What a piece of engineering!" cried Saunderson.

"Beats them cliff dwellers' ruins all to blazes!" exclaimed Red.

"It's the most marvellous thing in America—if not in the entire world!" I declared. "And to think we've reached it by chance—by accident!"

"Don't think there's anyone livin' there, do you, Doc?" asked Red. "If there is, I dunno about getting no closer, afore we know whether they're hostyle or not."

"No fear of that," I told him confidently. "This place has been deserted for centuries—probably thousands of years."

Fascinated, awed at the size and grandeur of the citadel and at the thought of

the stupendous labor that must have been involved in its making, we hurried on. Presently, in the shadow of the great rock curtain hundreds of feet above our heads, we came to a second massive wall with an opening barely wide enough to permit a single man to pass. Beyond, a steep pathway zigzagged upward, a mere groove hewn from the rock, and at each abrupt turn was a miniature fort commanding the passageway.

"Great Scott! Why one man could hold this place against a regiment!" exclaimed Saunderson. "And even modern artillery couldn't smash down this mountain."

But no man disputed our way. There was no sign of life other than the lizards that scuttled over the rocks and gazed at us with their unwinking jewel eyes. And then suddenly, as we turned one of the corners, our way was barred by a massive gate set in the low and narrow tunnel where the pathway entered the fortress. On either side were narrow slits some ten feet or more above our heads, like the arrow-slits in mediæval forts of Europe.

"Reckon we've come to the end of the road," remarked Red. "Don't look to me like we could bust in that door. An' even Karen couldn't squeeze through them windows up there."

"Look!" I exclaimed, pointing to the rock above the gateway. "There are those same symbols or characters again."

"Aha, now I have it!" cried Saunderson. "An advertisement—that's what! Typically American, you know, putting up signs all aloug the highway. And that gadget you picked up: Advertising, old chap, advertising! And here we are with the name of the emporium over the door! Must be off on a holiday though, or taking a siesta. We'll have to rouse them up——"

Stepping forward, he hammered on the door vigorously with a lump of rock.

The next instant we sprung back as if struck. From one of the slits above our heads came a human voice!

Thin, high-pitched, a wraith of a voice; such a voice as one might expect from a ghost. It was incredible, uncanny, as if the spirit of some long-dead inhabitant of the place had spoken from the tomb. I felt a strange prickling of my scalp, a tingling of my spine. Saunderson stood staring, mouth agape, and Sam's teeth were chattering like castanets. Only Karen and Red appeared unaffected by the sepulchral voice issuing from the depths of that fortress that I felt sure had been untennated for centuries. The Malay, squatted on his haunches, was whetting his kris upon a stone, and the Texan, his six-guns half-drawn, was squinting at the narrow aperture, whence the words appeared to issue.

"Hell, I thought you said there wasn't no one here, Doc," he muttered. "What's the guy sayin'? Can you savvy his lingo, Doc?"

I silenced him with a gesture. All my attention was concentrated upon the strange, incredible voice from within the fortress, for the words coming from out of the dead past were in the Hualla dialect, the mother tongue from which the Aimara and Quichua languages were derived, the Sanskrit of America, the most ancient language in the New World. Many of the words were unintelligible to me, but I knew enough of the dialect to get the meaning of what the spirit voice was saying.

"Who art thou, the five who come unto Achcaruna-sapi?" the invisible one demanded. "Why dost thou some unto the Place of the Dead made sacred by the footsteps of Wira Kocha, the Creator? Speak and utter only words of truth ere the wrath of the gods descends and destroys thee!"

WITH a tremendous effort I got my nerves under control, and moistening my lips, I spoke in the Quichua.

"We are wanderers from afar," I replied. "For many days we have been lost. We have been near to starving, near to death at the hands of the little men of the valley whose skins are like those of the chameleon. We have come hither by chance, our steps led by the gods and by Fate. We seek only food and shelter and a road whereby we may return unto our fellow men."

For a space no words came from the unseen being within the fortress and rapidly and in whispers I translated what had been said. "You asked what Achcakuna meant," I said to Saunderson. "I can tell you now. He spoke of this place as Achcaruna-sapi. That means the "Origin or birthplace of the multitudes of men." The Indians have corrupted it to Achakuna. Good Lord, do you know what we've stumbled on? The original centre of all the civilizations of Ancient America, in my opinion! If only—"

—The mysterious almost supernatural voice interrupted my words.

"It is well," said the speaker, now using the Quichua tongue. "Thy words are true, for beside thee I see the Red-haired One, and for long have I known that thus events would transpire even as foretold in the prophecy of old. But with thee, also, comes one who is black of skin like that of Supay, the god of evil, and another who is brown like the savages of the Chaco, and their presence was not foretold, O Man of the Beard. So show unto my eyes the sacred talisman that I may know that all is well, and the gate shall then swing wide that thou mayest pass within."

His meaning was incomprehensible to me. That he claimed to have expected us, that our coming had been foretold, did not suprise me. That was no doubt merely a pose, a gesture to make me think he was not surprised at our presence. Nor did I wonder that Sam's skin aroused suspicion. But what on earth did he refer to as the "sacred talisman?" As I hesitated, wondering what I should say, how I could overcome the seeming *impassé*, my fingers touched the golden disk in my pocket. What impelled me I do not know. Perhaps it was an inspiration, perhaps one of those inexplicable flashes of a sixth sense which we call hunches or intuition. But whatever the cause, I drew the golden pendant from my pocket and held it up. And instantly, as if by some magical effect of the disk, the gate swung open, and in the dark entrance of the fortress a man stood revealed. His appearance was as spectral as his voice had seemed. Tall and emaciated, his back was bent by the weight of many years. His white hair hung in plaits about his stooped shoulders. His face was wrinkled, creased and the color of leather, while his eyes, so deep-set that they were scarcely visible, gleamed and burned with the brilliancy and fire of youth. Upon his head was an elaborate headdress of silver and feathers. He was clad in a long robe of black and red, covered with embroidery depicting the jaguar-god and other beings of pre-Incan mythology. Over his shoulders was a short poncho, while about his scrawny neck was a string of immense black and red onyx beads separated by beads of gold. And he leaned upon a carved wooden staff decorated with mosaic work in gold and turquoise. But I scarcely noticed these details of costume. My eyes were focussed upon his face, for he possessed a drooping gray moustache and a long gray beard. He was the living counterpart of the strange, puzzling effigies of the bearded god—the Wira Kocha or Creator—of the pre-Incan races!

Saunderson's words broke the spell.

"By Jove, that gew-gaw you picked up is a genuine open-sesame!" he explained. "No, by gad! It's an Aladdin's lamp! Just rub it and the genii appears!"

"Reckon money talks down here behind God's back same as back home," said Red. "What's Santa Claus sayin' now, Doc?"

"HE wants to know why the 'Red-headed One' doesn't speak to him," I told him. "You appear to be a rather important personage in his estimation."

"Shucks, I can't jabber his lingo," growled Red. "Tell him I ain't got nothin' to say—only I'm pinin' for a square meal an' a plug of tobacco."

The ancient being in the doorway bowed low and extended his arms towards us in obesiance as I translated the Texan's words. "The will of the Red Haired One is law unto his servant, Sarayaccu, priest of the holy city of Achcaruna-Sapi," he said. "Great is his wisdom and great shall be his power. Even the one of the black skin may follow, if he be the servant of the Red-haired One."

Turning, the priest led the way within the fortress.

"I think I'm beginning to see light," I told the others as we followed the bent figure carrying a flaring torch he had taken from a socket in the stone wall. "There is an ancient tradition that centuries ago—during the reign of the Inca--Tupak Yupanqui—it was foretold that, after the conquest, a stranger would one day appear who would become the leader of the remnants of the Incans and would rebuild their empire. And in the old prophecy it was stated that this Messiah of the race would be a man with red hair. Red, how would you like to become a king?"

"Hell, I ain't cravin' to be no king, nor no president, neither, 'specially when they's only a old granddaddy like him to be king to."

"I don't think you need worry over a scarcity of subjects," I told him. "The priest—for he *is* a high priest of Wira Kocha, the supreme God—spoke 'of the people.' I'm afraid I was away off when I said this place was deserted. I think we'll find quite a population here somewhere."

"Ah, Red, my lad, let me be the first to congratulate you!" cried Saunderson. "King Red the First! Better than being a satyr, don't you think—especially if there are lovely ladies, or—by Jove, yes!—a royal harem."

"Yeah, well, I'll make you the king's jester—or mebbe chief eunuch!" Red retorted. "That'll hold you for a spell, I reckon."

Deeper and deeper into the very heart of the mountain the priest led the way, the flickering light of his torch reflected from the crystalline walls in prismatic colors, and revealing ornate carvings everywhere cut deeply into the stone. Down long flights of steps he guided us, along narrow winding passages and vaulted corridors, until finally, entering a huge chamber with frescoed walls, he paused before a mass of sculptured stone in the center of the room. Bowing before the monolith, he swung the mass of rock to one side as though it were on rollers and revealed a trap-door set in the stone floor.

"'Pon my word, he's about to take us into his wine cellar!" ejaculated Saunderson. "I——"

Our strange guide was speaking. "He wants us to lift the door," I told them.

"I dunno about doin' that," demurred Red. "How we goin' to know there ain't some monkey business about this? Mebbe it's a trick to get rid of us."

"Nonsense!" I exclaimed. "He didn't have to admit us, did he? Come on, give a hand and don't be a fool, Red."

As we raised the trap-door we saw a flight of stone steps vanishing in the blackness below. Stepping forward, the priest descended the stairs, and wondering whither we were bound, we followed at his heels. The next instant we stood gasping, speechless with amazement, gazing in wonder at what the light of the torch revealed. On every side were stacks and piles of yellow gold! Blinding rays of green, crimson, blue and violet were flashing at us from myriads of gems. Ranged about the walls were rows of sacred golden vessels and utensils. There were life-sized figures of men and beasts wrought in solid gold. Carved stone chests overflowing with rough golden nuggets stood about; and piled to the ceiling were dull ingots of the precious metal.

"GREAT jumpin' gorrimighty!" exclaimed Red in awed tones. "There must be a million dollars worth of gold here!"

"Many millions," I told him. "If—"

"My sainted aunt!" cried Saunderson, for once abandoning his flippancy. "I never would have believed there was so much gold in the world, and I've seen the bullion in the Bank of England!"

I had been listening to the priest's words, and now I turned to the others.

"There probably isn't this amount of gold anywhere else on earth—in any one place," I said. "He says that the riches intended for the ransom of Atahualpa are here—the seven-hundred-foot gold chain made to commemorate the birth of the Inca Huascar, the twelve gold statues of the former Incas, the jewelled golden trees and images of the garden of the Temple of the Sun in Cuzco, and the seven thousand carriers' loads of gold dust and nuggets. That treasure alone has been estimated at over one hundred and fifty million dollars! And there are tons of gold that were placed here ages before that. Roughly I should say there are fully one thousand tons of gold here!"

"Shades of Croesus!" gasped Saunderson. "One thousand tons! Hold me up, someone! My sainted aunt, that's that's——"

"About half a billion dollars—as bullion," I told him. "But worth many times as much as archaeological specimens. And don't forget the gems!"

Red was staring wide-eyed, open-mouthed about the treasure chamber. "Say, Doc," he said at last. "I reckon I'll change my mind about that king business. If all this goes with it, it must be a damned good racket. But shucks. You was just kiddin', of course. An'—oh hell—there ain't that much money in the world!"

"If the Red-haired One is satisfied that the treasures of those who have gone before have been safely guarded by me, his servant to command, let us go," said the high priest. Turning, he ascended the stone stairs, and with our minds in a turmoil, silenced at thought of that immeasurable hoard of gold, trying to convince ourselves that it was not all a dream, we followed in his footsteps.

Still dazed, we replaced the trap door. The priest swung the monolith into place, bowed low before it, and tap-tapped along the labyrinth of passages, until we saw the gleam of sunlight and a moment later stood once more in the open air.

CHAPTER VI

In the Forgotten Valley

TO our amazement we had emerged at the summit of the fortress. Above our heads arched the overhanging curtain of the mountainside, as if ready to fall at a touch. Far below us was the narrow, winding way leading

from the gate to the pass, where the cyclopean wall seemed merely a gray thread, as we viewed it from our lofty perch. In the distance was the green valley of the Chameleon Men, and beyond all were the jagged, upflung summits of the Andean ranges.

The gray-bearded priest moved slowly across the parapet and led us into the shadows of the caverous hollow cut deeply into the face of the mountain. Filled with wonder at such a stupendous work of man, I gazed about. It seemed incredible that any human beings could have carved such a gigantic artificial cavern; yet to have done so must have been mere child's play compared to the engineering skill and labor involved in the hewing of the entire fortress from the living rock. Saunderson voiced my own feelings when he spoke.

"By Jove!" he exclaimed. "I never felt so deucedly small in my life. "'Pon my word, makes one realize what an insignificant thing a man is, after all."

"You said it, Mister," declared Red. Me, I know just how a hop-toad feels when he tumbles into a cyclone cellar."

Turning aside, we followed old Sarayacu down a narrow descending pathway, until rounding an abrupt turn, and ascending a sharp rise, we looked down upon a tiny bowl-like valley hidden in a gigantic rift in the mountain.

Again we stared in wonder, for the entire area of the valley was covered with tilled fields and growing crops separated by stone walls and dotted with countless houses. Here was no dead and deserted stop, but a valley teeming with life and industry and hidden from all but the soaring condors in the sky. My emotions were too overwhelming to be adequately described. I had hoped to find traces of unknown ancient civilizations in this unexplored district. Instead, I had found an unknown, immeasurably ancient civilization still flourishing. I had come upon some forgotten, isolated community of the pre-Incans. I felt like a naturalist who, in some untrodden jungle, had come face to face with living breathing dinosaurs. Columbus, seeing the shores of a new-found world looming above the horizon, could not have known the wonder, the elation that filled me, as I gazed down from the mountain heights upon that tiny secret valley. It was unreal, dreamlike. Even the gray-bearded priest beside me seemed a vision, a figure out of the dim, immeasurably distant past. I had stepped back for countless centuries, for thousands of years. I had outdone Mark Twain's famous "Yankee at King Arthur's Court!"

I think that Saunderson felt more or less the same, although of course even he did not fully appreciate the marvel of our surroundings, not being an archaeologist. And even Red, who could not have distinguished a pre-Incan from a Cholo, was visibly impressed with the wonder of coming upon a civilization here in the heart of the Andes, "behind God's back" as he expressed it.

Of course all these sensations swept over me in an instant—in that instant that we stood there gazing at the valley. The next moment old Sarayacu was speaking.

"Behold that which no other eyes than those of the gods have looked upon for twice ten centuries!" he cried, raising his staff and pointing dramatically towards the oasis-like valley. "Behold all that remains of the race whose kings ruled Achcaruna-sapi and the four corners of the earth in the long ago. Behold the homes of the chosen people of Wira Kocha; the descendents of those Chavins who, of all in the great city of Urkon, survived! Look upon thy people, O Red-haired One. Long have I awaited thee, O Chosen One. Yea, I

and my father before me, for we of the priest clan of Achcaruna-sapi have known that the ancient prophecy would be fulfilled. And now thou hast come, thou and thy emblem-bearer and He of the Hair of the Sun, yea and thy black servant and thy brown spear-bearer. Mighty are the gods and helpless is man in the hands of Destiny, for that which is to be will be. Unto Achcaruna-sapi thou hast come. Here thou wilt abide with us and be our king, to have thy children and their children's children sit upon the throne of Wira Kocha until the end of time, as was foretold in the prophecy."

I gasped. It was as I had suspected. The old priest, possessing implicit faith in the fabulous prophecy, no doubt had watched and waited for years for the promised arrival of the god-like being who was to become his king according to tradition. And when we had appeared, and he had seen Red's flaming thatch of hair, he had jumped to the conclusion that the promised savior of his race had arrived. Unless I was vastly mistaken we had got ourselves into something of a jam, and we would have our hands more than full in trying to get us out of the mess. Personally, of course, I shouldn't have objected to dwelling in the place for several years. No living scientists had ever had such an opportunity for studying the pre-Incans. But neither Saunderson nor Red, I felt sure, would consent to remaining there for long.

And as for Red—rough, restless adventurer that he was, and ignorant of everything pertaining to the aborigines, unable to speak or understand Quichua—why, the thought of him becoming a native king was too preposterous for words.

"What's he lecturin' about now?" the subject of my thoughts enquired. "The old padre's been preachin' a regular sermon, 'pears to me. What's it all about, Doc?"

"Yes, indeed, do tell us the story, that's a good chap," put in Saunderson. No end of a bother, not being able to gather a word that he says. Wish I had learned Quichua or whatever he speaks, really I do."

I repeated what Sarayacu had said, but in less flowery words.

A strange expression crossed Red's face as I spoke. An expression in which incredulity, wonder, anger, amusement and self-satisfaction were struggling for supremacy.

"Shucks, the old padre's just plumb nutty!" he exclaimed when I had finished. "I ain't no answer to his old moth-eaten prophecy, an' I ain't aimin' to stop here no longer'n I have to, neither. I come along with you, Doc, an' I'll stick with you, long as you're wantin' me. But I didn't sign on to this expedition for nothin' else. And if old granddaddy here thinks I'm cravin' to settle down here an' rear up a bunch of half-breeds, he's got—another guess comin' to him. Just tell him that for me, will you, Doc? An'—Oh hell, what's the use? I was goin' to ask you to ask him about that damned gold he showed us—why he showed it, if he ain't goin' to let us have none of it."

I HAD never before known Red to make such a long speech. I smiled. "I'm afraid if I repeated *all* you've said that we would be worse off than we are now," I told him. "I'll handle your abdication of the throne a little more diplomatically. And I don't think it would be advisable to mention the gold. That, as I understand it, goes with the crown. And if these people should once get the idea that we are merely white men, that we place any intrinsic value on gold, we wouldn't be alive an hour later. Remote and unknown as these people are, they

have heard of the Spanish conquest—undoubtedly the news was brought here by the carriers of Atahualpa's ransom—and they would never permit a white man to see this hidden colony and escape to carry word of its existence to the outside world. The priest regards us as semi-divine beings. As long as we are revered and respected as such we are safe. But if we are to continue to live, if we expect ever to get away, we must keep up that delusion. So if you'll leave the matter in my hands I'll try to find some safe and sane way to solve our problem. But I can assure you both of one thing. Regardless of what the final result may be, we might just as well make up our minds to remain here for a considerable period. "It——"

"Right-o!" exclaimed Saunderson. "You're distinctly right, old man. I can quite understand that we are teetering on a tight-rope with complete oblivion on one hand and the life of demi-gods and kings on the other, and with negligible expectations of being able to maintain our balance until we reach the end of our rope which is represented by our own ideas of civilization. As our esteemed and elderly clerical friend observed, 'man is helpless in the hands of Destiny and that which is to be will be.' Positively yes! I'm a bit of a fatalist myself, you know, and after all this isn't such a beastly sort of place to be confined in. It might prove no end of a lark to be potentates for a bit; and seriously speaking, of the two I should much prefer being a king—or even a court jester—to being a corpse."

Sarayacu had been listening attentively to our conversation and I could see that he was beginning to get impatient and slightly peeved.

"Why does the Red-haired One not speak to his servant Sarayacu in the tongue of his people?" he demanded. "Why does he converse in strange words with Him of the Hair of the Sun, and with the Bearded One?"

"O priest of Achcaruna-sapi," I said—and my mind was working swiftly to find a means of satisfying him and allaying his suspicions—"It is the wish of the Red-haired One to speak through the mouth of his friend. The exalted ones speak directly only to their kind. Not until the Red-haired One is seated on the throne will he deign to speak other than through me, who am his amautu (councillor). Have you not faith in my words, O Saracayu, priest of Achcaruna-sapi? Have you not faith in the one to whom the Red-haired One entrusts the keeping of the sacred emblem?"

The priest bowed low. "I am but the servant of the mighty ones who have come hither bearing the sacred emblem of Wira Kocha and in the company of the Red-haired One," he said. "His will shall be the law of his people. None shall question his wisdom nor the words of the Bearded One who is his Amautu."

The old man turned and stretched his arms toward the valley where tiny dots of human beings could be seen moving about.

"THY people await thee, O Red-haired One!" he exclaimed. "Let us not keep them waiting longer."

Following the aged priest, we descended toward the valley where strange and amazing events were destined to take place.

"See here," I said as we walked slowly after the priest. "You fellows will have to learn Quichua. I've managed to explain why you don't speak the language now, but that won't serve for very long. Sooner or later you'll have to speak it or there'll be trouble. If you don't, if the people—and especially this priest, Sarayacu discover that you are ignorant of the language they'll be suspicious, and

suspicions will grow to certainties. Don't forget that we're here under false pretenses. Because those pretenses were practically forced upon us doesn't alter the case in the least. Now we're here we've got to see it through, and the sooner you two can speak some Quichua the better for all of us. Even if you could only say a few words, such as 'it is well,' 'yes' and 'no,' and some common forms of salutations it would be a tremendous help. And you'll find Quichua a fairly easy language to learn."

"Right-o!" agreed Saunderson. "Whatever you say, old chap. 'Mine not to question why, mine not to make reply, mine but to do or die,' and all that sort of thing, you know. But seriously, I'm not such a duffer at picking up a language. I speak Malay and Hindustani, and a bit of Burmese, et cetera. When does the first lesson begin?"

"Reckon I can manage it," declared Red. "Mebbe I won't never get to sling the lingo grammatic-like, but I savvy Spanish an' Apache an' some Navajo, an' I don't reckon this Quichua's no harder than them."

"Fine!" I exclaimed. "Better start right now. If Sarayacu overhears us all the better. He won't know I'm teaching you the words, but hearing you speak them he'll think you're familiar with Quichua as I am."

So for the next fifteen minutes I drilled the two in the proper use and pronunciation of a few simple phrases and words.

"How in blazes we goin' to know when to use 'em?" asked Red. "If I don't savvy what they're sayin' to me how in hell can I answer 'em right?"

"Don't try," I told him, "unless I'm with you. Then I can tip you off what to say."

Saunderson chuckled. "My word!" he exclaimed. "I don't envy you your job, old man. Really, you know, you should be the Prime Minister. You have your hands full; interpreter-in-chief, mouthpiece of His Majesty King Red the First, prompter extraordinary, contact man, advisory committee, bearer of the royal seal or whatever it is, master of ceremonies, et cetera, et cetera."

"Say, Mister, quit that line of talk about me being a king," growled Red. "I ain't no king an' I ain't goin' to be one, neither. Not less it's goin' to save our skins bein' one."

"Rabid republican!" grinned Saunderson. "Doesn't all that vast treasure tempt you to become a monarchist, my lad? By Jove, if *I* had hair that was rufus I'd jump at the opportunity, positively."

We were now approaching the valley and were moving along a smooth, well-kept road that led down the foothills by an easy gradient. On every side were orchards of fruit trees and neatly terraced gardens; and here and there a stone or adobe hut stood embowered by climbing vines and ornamental trees. Everywhere, too, were the people, men and women, toiling in the fields and gardens, spinning or weaving in their doorways, or tending flocks of alpacas, llamas and immense long-haired goats. As we approached the first of these herds Saunders gripped my arm.

"GREAT Scott, Doctor, do you see those?" he cried, indicating the dun-colored goats. "Don't you recognize them? They're those mythical Andean goats of the Indians' tales! By Jove, yes! No doubt about it! Oh, my sainted aunt! To think I've hunted all over the Andes trying to get a shot at one of the beasts and here they are by the hundreds—domesticated!"

"Well, you ain't got no kick comin', far as I can see," grinned Red. "You

can shoot all you want of 'em here, an' no trouble neither."

Saunderson for once could find no adequate words with which to reply.

But I realized how he must feel at finding the almost fabulous creatures were merely domestic animals here, for I felt much the same in regard to the people who were hurrying forward from all directions as we proceeded on our way. They might have been painted figures from pre-Incan pottery come to life. All were dressed as the aborigines had dressed centuries before the conquest. The men in sleeveless tunics reaching to the knees, and short-legged drawers, the women in loose full skirts of knee length and with poncho-like capes over their bare shoulders and breasts. All were gay with color, all wore ornaments of silver and gold, and all differed amazingly from any Andean Indians I had seen. Instead of being short and stocky, they were tall and splendidly proportioned. Their features were clear cut, their foreheads high and broad, their noses high-bridged and slightly aquilline, and their eyes alert, keen and hazel-gray. And not a single brown-skinned individual could I see. Mostly they were a light olive, some were what we would call swarthy, but many were as fair as any European brunette. Never have I seen a more universally happy and contented-looking lot, and with obeisances and salutations, with showers of flowers and shouts of gladness they welcomed us. Rapidly news of our coming had spread, and soon we were surrounded by the laughing, joyous but slightly-awed throng. And like a triumphal procession we moved onward between the neatly-walled fields of alfalfa and maize, potatoes and peanuts, toward a group of larger buildings now visible in the shelter of a grove of towering Mapoya trees ablaze with crimson blooms,

"By Jove, isn't this perfectly ripping?" cried Saunderson. "It's as jolly as the Lord Mayor's Show! And the ladies! My word, some of them *are* beauties! Oh, I say, Red, my lad, if you decide to abdicate just do me a favor, old top, and name me as your successor to the throne!"

Red, secretly as much surprised and pleased at the ovation and the people as any of us, grinned. "I dunno about that, Mister Sun Hair," he said. "Some of these nice little girlies might be sorta disappointed if they didn't have a red-head for a king."

Sarayacu's voice stopped further conversation. "Behold, O Red-haired One,, we draw near unto thy home. Behold how thy people welcome thee. Great is the joy of the people of Achcaruna-sapi this day."

I nudged Red's elbow. "Now's your chance," I muttered. "Tell him it is well."

AS Red uttered the simple phrase he had just learned, the priest's face beamed. At last the Red-haired One had spoken directly to him. He felt tremendously honored, and it suddenly dawned upon me that Red's inability to converse in Quichua had helped rather than hindered matters.

My thoughts were interrupted by our arrival at the group of buildings in the grove. I could have shouted with joy, for, at my first glance at the imposing structures, a thousand problems and puzzles that hitherto had confronted archaeologists were instantly solved. Scores, hundreds of times I had studied the crumbling ruins of pre-Incan buildings, striving to recreate them, to picture them as they had been when occupied, but in vain. And now before me were exactly similar buildings complete, in perfect repair, tenanted. Behind the

wall of titanic stones, rose structures that might have been those of Tiahuanaco in the heyday of that immeasurably ancient city. To the right the severely plain but massive citadel; to the left the elaborately-sculptured, magnificent palace, and in the background, on its pyramidal mound, the imposing temple. There before us, as we passed through the outer portal, was a monolithic arch, the counterpart of the "Gateway of the Sun" of Tiahuanaco. And beyond it the level stone-paved *Cancha* or plaza surrounded by hundreds of carved stone columns, each capped with a symbolic figure wrought in solid gold. What stupid fools we modern archaeologists had been! I thought. Always we had assumed that the tenon-like tops of the Tiahuanco columns had been designed to receive lintels of wood or stone. Never had it occurred to us that they were made to support golden images. But another revelation was to come. Men clad in gorgeous ceremonial costumes debouched up on the plaza and quickly took positions, one before each of the gold-topped columns. Another puzzle was solved. The monoliths marked the stations of the nobles of the community. The gold figures were the totems of the "Great Ones." Strange that such a simple explanation had never occurred to any scientist! And now a hushed silence fell over the assembled throng, and Sarayacu, taking a step forward, held high his hands, and with such a gesture as the Prophet Moses might have used, he blessed the multitude. Then: "Behold, O people of Ashcaruna-sapi thy prayers have been answered and the ancient prophecy has been fulfilled. This day unto us has come the Red-haired One to take his seat upon the sacred throne of Wira Kocha. With him has come his Amautu, the Bearded One, and his warrior chieftain, the One with the Hair of the Sun; and to serve them have come one with the black skin of Supay and one of brown. Blessed are we of Achcaruna-sapi, favored are we by the gods. No more shall we of the Chavins be without a king. No longer shall the Amaru-huay beset us and exact the tribute of virgins. No longer shall we fear the powers of darkness and of evil, for the Red-haired One has come from beyond the barriers of the great mountains. He has come with the Bearded One and the One of the Hair of the Sun through the valley of the little men, and he and his trusted ones are immortal and indomitable. And great indeed is their wisdom. Aye, and they bear with them the sacred symbol of Wira Kocha that no man has looked upon for twice ten centuries. Behold, my people, the Amautu of the Red-Haired One will hold aloft the emblem that all may see."

I did not need to be prompted. Stepping to the priest's side, I held high the golden disk and turned it about so that all might see it. A deep, indrawn breath of awe that was almost a sigh arose from the hundreds of people. I nudged Red. "Say something!" I commanded him. "Let them hear your voice. "Tell them it is well, jabber some Apache or Navajo or anything else afterwards, and put in all the Quichua words I've taught you. Its——"

"Speech!" shouted Saunderson, clapping his hands, "Speech, Red my lad! Iba ishti kampisjinallactac ama, and all that sort of thing, you know!

"Speech!"

The effect of his meaningless gibberish, his string of Quichua words and incomprehensible English and his hand-clapping, was astounding. The people fairly roared with approbation, and, thinking no doubt that hand-clapping was some important mystical ceremony, they instantly followed suit and the applause was deafening.

BUT as Red stepped forward all sounds were instantly hushed. All eyes were focussed upon him, all ears were strained to catch his words. "Matapacuy pakunarem ka aamuy—Oh hell, what's next Doc? O. K. Ra-ama Inga kaicho, tengo much gusto, señores y señoritas. Yo soy hombre muy. Shucks you don't none of you know what I'm tryin' to say, nohow, kacharpani."

Amid a thunder of applause, in which the newly acquired custom of hand-clapping almost drowned the shouting, Red stepped back, wiping the beads of perspiration from his flushed face.

"Whew!" he ejaculated. "Damned if that wasn't the hardest thing ever I been called on for to do. Holy catfish, I hope I ain't gotta make no more speeches. Any speeches as has to be made you go ahead an' say 'em, Doc. What the blazes did I say, anyhow?"

"Balderdash!" replied Saunderson. "Not even a lot of tommy-rot. You started off gloriously, you know—so delighted to be here, and all that sort of thing. But after that—by Jove, it's lucky they don't know what you *did* say. Absolutely, yes!"

"Yeah, well I bet you didn't say nothin' any more sensible when you begun to shoot off your mouth," growled Red. "How about it, Doc?"

"Far be it from me to become involved in the controversy," I replied. "But I'm beginning to think that a little knowledge is a most valuable, rather than a dangerous thing, here. If these people can understand a word here and there, but can't make head or tail of the rest of the words, they're a lot more impressed than if you spoke perfectly intelligible Quichua or even Hualla. It's a queer psychological quirk, but perfectly natural. Anything they can't understand savors of mysticism. And every mother's son of them is going to pretend he understands for fear of others thinking him ignorant."

"My word, I do believe you're right," agreed Saunderson. "Human nature is much the same the world over, you know. Yes, by Jove, it's precisely the same way with an audience in a lecture-hall in jolly old England or the States. Catch any of them permitting their neighbors to suspect they don't grasp the lecture chap's meaning! But—Oh, I say, here comes the chorus!"

At the opposite end of the plaza a procession of girls appeared, all dressed alike in garments of scarlet and black and ablaze with gold. Chanting a song and scattering flowers they advanced four abreast, knelt and made obeisance before us, and then, rising, turned to right and left and took positions around the sides of the open space.

Saunderson touched my arm. "I say, old chap, who are they?" he asked. "Ladies of the harem or the royal ballet?"

I shook my head. "I'm not sure," I told him. "Probably Virgins of the Temple or merely feminine members of the nobility. "I——"

An exclamation from Red that was almost a gasp, drew our attention. He was staring, almost reverentially, at one of the girls who was approaching him. There was no denying that she was a very lovely creature. Her skin was the color of old ivory; her figure, revealed by the turned-back cape was that of a nymph rather than a Venus; her large lustrous eyes were shaded by long thick lashes; her brows were perfect arches. Her lips, parted in a provocative smile, showed even, pearly teeth, and she walked with the regal tread of a queen. But it was not her glorious young beauty that held our eyes. Beneath the *llantu* that encircled her head her hair fell in two long plaits of deep Titian red!"

"BY Jove, what a beauty!" exclaimed Saunderson under his breath. "And red haired! Where on earth did she come from? I say——"

The girl was kneeling almost at Red's feet. With bated breath, as if in a trance, he was staring at her as if she had been a vision or a goddess. The next instant she rose, cast one quick sidelong glance at him from under her lowered lids, and moved aside to make room for the next four girls.

Red reached a shaking hand and touched me while still keeping his eyes fixed upon the girl. "Did you see her, Doc?" he gasped. "I ain't never fell for no woman afore, but she got me. There ain't no other on earth like her! Who the blazes is she, Doc? Ask the old padre what her name is an' where she lives. I gotta see her again, if I have to shoot up the whole damned place to do it."

I turned to Sarayacu. "The Red-haired One wishes to know the name of the virgin with hair like unto his own," I told him.

The priest's face fairly beamed. "Favored indeed is the house of Sarayacu," he exclaimed. "She of the red hair is Cherisona, the daughter of my daughter. Her father was the noble Kopa Cahuana of the royal clan of Urkon. Long have I prayed unto the gods that when the Red-haired One came to Achcaruna-sapi even he might look with favor upon Cherisona, and that she might sit by his side upon the throne of her fathers' fathers, and that their children might rule forever over our people."

"The young lady is named Cherisona," I told Red. "She is Sarayacu's granddaughter, a princess of royal blood, and a candidate for the position of queen. It appears——"

"Is that straight, Doc?" demanded Red, interrupting my words. "You mean if I'm king of this place I can—Oh, shucks, she wouldn't never marry me!"

"Don't worry over that," I said. "I can assure you that you have merely to ask her and she'll jump at the chance. If I'm any judge of human nature and femininity she's aching for the chance to say 'Yes.'"

Saunderson chuckled. "Ah, but don't forget, Red, my lad, that you can't converse with the young lady or ask her hand and heart until you have acquired a more comprehensive knowledge of her language. But, honestly, my boy, you *are* a deucedly lucky dog, you know!"

"The hell of a lot you know about it," snapped Red. "Makin' love's the same in all lingos."

"Right, distinctly right!" agreed Saunderson. "I've had some little experience myself, you know, and I can assure you that jolly little Cupid has evolved the most perfect Esperanto ever devised. But——"

"Doc!" exclaimed Red, ignoring the other's flippancy. "I changed my mind. I'm just cravin' to be made king. Tell the padre that I'm just r'arin' to go. I'm ready to be initiated into this king business any time he's ready. Hell, I'd be king of a bunch of lousy Piutes if I could get spliced to that Cherimoya girl." "Not Cherimoya, Cherisona," I corrected him. "O. K. Doc, Cherisona," he continued. "I——"

"Don't forget that if you go through with this you'll probably be here for life," I reminded him. "There may be a way out for us without sacrificing your liberty."

"Sacrifice, hell!" he cried. "Great jumpin' jimminy! Do you call it a sacrifice to be hitched to that Cherimoya—no, Cherisona—girl? An' as for livin' here; I ain't got no kinfolk back home, an' I been thinkin' of settlin' down some place, an' I ain't never seen no place

better'n this. 'Pears to me I'd a heap rather be a king here than a rollin' stone in God's country."

CHAPTER VII

The Palace of the King

"THERE'S something I don't understand yet," I said as the crowd dispersed and Sarayacu led us across the plaza to the palace. "There's some mystery I haven't been able to fathom."

Saunderson laughed. "Everything here is no end of a mystery, to me," he declared. "That amazing great fortress, the treasure, how these people have survived here without being discovered, that stunning princess with the Titian hair and, most of all, why they should desire Red for their king."

"All astonishing, but scarcely mysteries," I told him. "Even the red hair of Cherisona is not mysterious—it is not uncommon to find Incan and pre-Incan mummies with red hair. What I had in mind is something entirely different, a mystery—or perhaps better, several mysterious things which, taken together, lead me to think there is something deeper, something hidden that we haven't hit upon yet."

"Really! What *is* this jolly old mystery of yours?" he asked. "I'm fearfully keen on mysteries myself—read all those silly old mystery magazines, you know."

"Doesn't it strike you as rather strange that these people are without a ruler—a king or queen—when there are plenty of men and women of royal blood, if we are to believe Sarayacu?" I asked him. "Then again, isn't it something of mystery that I should have picked up that gold disk which proved to be the sacred symbol of these people? How did it happen to be there? Surely any one, possessing such a priceless all powerful talisman, would never have dropped it and failed to search for it. Another mystery to my mind is the presence of that chain by which we entered the valley. If it was designed to enable people to scale the cliff why was it drawn up so that no one could reach the canyon from here, but people approaching by the trail could get here? Whoever carried that symbol I found was either going from this place, or, if coming toward it, he never reached the chain ladder. I——"

"I ain't no detective," said Red, interrupting my words, "but I reckon I know the answer to that one. Didn't you say that gold was brought here by a bunch of Injuns so the Spaniards wouldn't get their hands onto it? Well, did them Injuns stay here? I'll bet they didn't. 'Cordin' to my way of thinkin', they cleared out an' went home, an' 'twas them fellows hauled the chain up after 'em an' most likely lost that emblem you found. They must ha' had one with 'em to get in here in the first place, an' if they wasn't aimin' to come back they wouldn't bother much if they lost it. An' someone cut down that old bridge what we clumb up on. Them ropes was sound an' hadn't rotted through. 'Pears like to me them fellers aimed to fix things so nobody else could get in here an' grab the gold, an' so the folks here couldn't get out to tell about it bein' hid here."

"By the Lord Harry, I never thought it of you, Red!" exclaimed Saunderson. "Why, my lad, you're a second Sherlock Holmes, absolutely, yes! By Jove, do you know I actually think you have hit upon the solution of that mystery!"

"I think it quite probable that does explain some of it," I agreed. "And I can quite see how Saracayu, knowing that the treasure carriers were to close the trail behind them, should be all the

more convinced of our semi-divine characters because we reached here. But there is another thing which the priest mentioned which puzzles me. When he was addressing the people here in the plaza he said, 'No longer shall the Amaru-huay beset us and exact the tribute of virgins. No longer shall we fear the powers of darkness and evil.' Those were no idle words, I am sure. These people have some very terrible enemy, either real or imaginary. He spoke of it as the Amaru-huay. That means a dragon as nearly as it can be translated. But of course that was a figure of speech signifying something terrifying and unconquerable. Whatever it is, it calls for human sacrifices—for the 'tribute of virgins.' It may be that girls are sacrificed to some evil deity, or again it may be that some savages must be propitiated by giving them young girls. Just as soon as I feel we are firmly established I'm going to find out."

"YEAH, an if I'm king of this bunch you can bet there won't be no sacrificing of girls to heathen gods nor nothin' else," declared Red. "If I'm boss I'm goin' to run things 'cordin' to my ideas, an' they're a-goin' to stand for it an' like it."

"Bully for you!" cried Saunderson, slapping him on the back. "I'm all for you, Red, my lad. And if Your Majesty requires assistance call on me. Nothing I love better than a good fight, you know. No end of a lark—knocking the blighters about in a righteous cause."

"Fightin's all right," agreed Red, "but what I'm cravin' right now is grub and tobacco. Say, Doc, ask the padre if he can't rustle some. I seen some of them men smokin' when we was standin' in the plaza. Sufferin' cats, what's this, a hotel?"

We had reached the palace, and passing between the intricately-sculptured columns flanking the doorway, on whose lintel were cut the same mystic inscription I have already described, we found ourselves in a corridor or collonade that extended around an immense patio or garden. It was, I think, the most beautiful patio I have ever seen. The beds of flowering plants, the ornamental shrubs, the neatly kept hedges, the vines clamboring over the palm trees, all were ablaze with color. The air was heavy with the odor of thousands of blossoms and vibrant with the music of bright-plumaged songbirds. Paths, paved with mosaics of jade, lapis lazuli, jasper, onyx, malachite, cinnabar, amethyst and other semi-precious stones, were shaded by flowering trees. Here and there were arbors of summer houses enbowered in vines. Gorgeous butterflies and jewel-throated humming birds hovered over the flowers. And in the centre of the garden was an immense bathing pool of sea-green serpentine, filled with running water flowing from a tilted urn held by a nude female figure wrought of solid gold.

Of course I did not note all these details at that time. We had scarcely more than a glimpse of the patio as we passed down the corridor, and followed Saracayu through a doorway closed by a magnificent tapestry, and found ourselves in an immense room. Evidently word had been sent that we were to dine, for a meal had been prepared for us and food in golden and silver dishes was being served by white-clad women as we entered.

"By Jove, makes me think of Lyons' Pop, on dear old Piccadilly!" exclaimed Saunderson. "All these waitresses in white, you know. But my word! Even Frascati's isn't so gorgeous."

"If the grub eats as good as it smells, it's all right by me," was Red's comment. "Say, Doc, how in blazes we

goin' to eat without no knives an' forks?"

"Fingers, my lad, fingers. Saunderson told him. "When a man has an opportunity to dine from dishes of solid gold he shouldn't be particular about the cutlery."

As was the custom with the Incans, each person had a separate table, or rather a bench, and seating ourselves on the low stools provided, we lost no time in satisfying our truly ravenous appetites. But despite my hunger I found my attention was more upon my surroundings than upon the food. And I scarcely could keep my eyes from the elaborate frescoes in red and black which completely covered the walls of the dining hall. But the attentions of the others were entirely upon the food served them by the demure sandal-shod girls. It was a really excellent meal. There were luscious fruits—the native peaches or *duraznos,* the pale pink Andean strawberries, cherimoyas, and bananas. There was a soup with paltas or as we call them, alligator pears. Boiled green corn, lima beans, potatoes and some sort of greens formed the vegetable course. For entrées there were roasted cavy or guinea pig and broiled quail, and for desert there were fried corn-cakes with honey. And of course there was the cider-like, corn chicha as a beverage.

"'Pon my word I never dined more sumptuously in my life," declared Sunderson when at last he had finished. "Now if only I had an after dinner Havana, I——"

"Me, I ain't cravin' no *see*gar," said Red. "I want a good chaw. Say, Doc, ask the padre if he can't rustle some tobacco."

The priest nodded and gave an order when I asked him, and, a moment later, a servant appeared carrying what looked like a section of cylindrical black wood. Red sniffed at it suspiciously. "Damned if 'taint tobacco!" he cried, and drawing his knife he hacked off a piece and stuffed it into his mouth. A satisfied grin spread over his features as his jaw worked. "Whoopee!" he exclaimed. "There ain't nothin' more I'm wantin'. Nice friendly lot of people, good grub, plenty of tobacco, a swell hotel and——"

"Don't forget a crown and a queen!" Saunderson reminded him.

Red leaped to his feet. "Holy smokes!" he exclaimed. "I'm goin' for to look her up. Now if there was only a movie we could go to——"

"Hold on!" I admonished him. "Don't be precipitate. Remember you are a semi-divinity, that you—all of us—are revered, and that our lives depend upon maintaining our present status. If you behave like an ordinary mortal we'll lose prestige even if we don't lose our lives. And don't think I'm exaggerating. These people are aware of the fate of their race at the hands of the Spaniards. They have cut themselves off from the world and have remained hidden away here, to avoid a similar fate, and they would never permit a white man to carry word of their existance to the rest of the world. Aside from all this is the outstanding fact that as king-elect you could scarcely wander about looking for a young lady, regardless of her social status."

"I reckon I gotta do as you say, Doc," growled Red. "But, hell, can't a king do what he wants to?"

"He cannot," Saunderson told him. "Most distinctly not. That's the penalty for being a king, you know. 'Uneasy lies the head that wears a crown,' and all that sort of thing! In return for the privilege of sitting on a throne one has to make concessions. Can you imagine good old King George wandering about Buckingham Palace in a bath robe and

slip-slops with a pipe in his mouth, or sitting on a bench in Hyde Park and holding hands with a flapper? No, it simply isn't done, Red, my lad. But I'll wager a quid to a sixpence jolly old Georgie would give the Kohinoor to be able to chuck the whole show and be just a man, 'even as you and I.' Absolutely, yes."

Red sighed. "Ain't there no way I can get to see that Cheri—Cherisona girl again, an' have a chance to get acquainted?" he asked. "Can't I throw a party or a dance or something an' invite her? I'm takin' on this king job account of her. Can't you ask the padre if he can't fix it up?"

"No, I will not," I told him, rather annoyed at his insistence. "I'm handling this matter as I think best for all of us. Sarayacu is as anxious as you are to arrange a match with you and his granddaughter. But these people have their conventions and customs like every other race. You've got to abide by them. I don't know any more about such matters than you do, but I don't propose to make a mess of everything by saying or doing anything that will reveal our ignorance. Now——"

Sarayacu, suggesting that if we had satisfied our appetites we should follow him, interrupted our conversation. Sam and Karen, who had been served with food in the patio, awaited us in the corridor.

"Wha la!" exclaimed Sam. "How we goin' arrange, Chief? Ah can't comprehen' wha' these people says an' they can't comprehen' me. An' Ah——"

"We'll fix that," I assured him. "I'll see that you and Karen are near us at all times."

THE priest led us through a second doorway, opening on to the patio and we found ourselves in a spacious chamber with walls completely covered with magnificent tapestry hangings. Never had I seen such textiles. Even the famed robes of the Parakas' tombs would have appeared cheap and tawdry by comparison. Thick soft rugs of viscacha and alpaca covered the floor. There were stools and benches of richly carved dark wood inlaid with precious metal and turquoise. A wisp of sweet-scented smoke drifted from a silver incense burner resting on a stand of carved jadeite; and at one side was a couch with coverings of textiles as fine and light as silk."

"May the Bearded One make this humble chamber his own," said Sarayacu. "If there is anything lacking, which he may require, it shall be his if he but speaks his wishes."

"My word, they do you rather well, you know!" exclaimed Saunderson. "Oh, I say, what jolly pajamas!" He was examining garments that filled a carved wooden chest.

"I laughed. "Not pajamas, full dress," I told him. "Apparently we are expected to follow conventions even in clothing."

"Sufferin' snakes, you goin' to wear them things?" cried Red. "Me, I——"

"You'll wear whatever they give you, and like it," I told him. "In the first place we'll be less conspicuous. In the second place it will save wear and tear on our own garments which are perilously near the end of their usefulness already. And in the third place the more we fall into the natives' ways the better. Clothes may not make the man, but they make a big impression on other men."

"Well, I'm a-goin' to tote my six-guns no matter what duds I wear," he declared.

"No harm in that," I told him. "These people don't know what a gun is, so they will probably think yours are ceremonial objects or some sort of insignia."

I turned to Sam. "This is my room," I told him. "You can stay here. No sense in trailing along after us."

The priest conducted us to another chamber almost the counterpart of the first, which he informed us was for the use of "The Lord of Hair of the Sun," or, as he expressed it, *Inchukespi.*

Saunderson gave an order to Karen, who squatted in the doorway, as we left the room and followed the priest across the patio to where two men, clad in sky-blue and white, and armed with long-handled bronze axes, stood guard outside a curtained door way. The sentries lowered their weapons in salute as we approached, and dropped to one knee as we passed between them through the portal. And the end of a short hallway Sarayacu paused before a heavy drapery. "May this chamber find favor in the eyes of the Red-Haired one," he said as he parted the arras.

The room we entered was indescribably magnificent. The walls, bare of hangings, were completely covered with mosaic pictures wrought in semi-precious stones and gold. Upon the floor of exquisite tiles were beautiful rugs and the skins of Andean bears, jaguars, ocelots and panthers. The insense burner and its stand were of massive gold ablaze with diamonds and the stools and benches were richly inlaid with gold, and encrusted with emeralds, garnets, topaz' and sapphires. And in the centre of the chamber was a fountain in the form of a golden lily, with a bowl cut from a single immense block of translucent, pale, green fluorspar. To the right was a door closed by a curtain of gorgeous feather work. "By Jove, the royal bedchamber!" cried Saunderson, as he lifted the drapery and peered within.

This room was, if anything, more regal than the other. Deep rich rugs of white and blue covered the floor. The walls were completely hidden under feather-work tapestry. The stools were of gold set with gems, and the couch of richly-carved and inlaid wood was covered with robes made entirely of the irridescent feathers of humming birds.

"Sufferin' snakes, have I gotta sleep in here?" exclaimed Red, staring about in awed bewilderment. "Hell, it ain't no sort of a room for a he-man. I feel like I was sleepin' in a bank vault or a jew'lry shop. Say, Doc, am I seein' things or is all this real honest-to-goodness gold? Holy smoke, if I had just one of these tables back home I'd be fixed for life!"

"You'll be fixed for life—here, if you become king," I reminded him. "No backing out of the job once you are crowned. Sure you want to go ahead with it?"

He wheeled on me. "Look a-here, Doc!" he cried vehemently. "I ain't never went back on nothin' I said yet. As long as that Cherisona girl is here you couldn't pry me loose, short of a blast of dynamite."

"MY word, what a wardrobe!" exclaimed Saunderson, who was examining the contents of a sculptured lapis-lazuli chest. "My sainted aunt, it would make an Indian rajah green with envy! Red, my lad, you'll be perfectly gorgeous when you appear arrayed in these togs; every girl will be running after you, positively, yes!"

"Yeah," retorted Red, "Well, you can have the job of roundin' 'em up, an' mebbe that'll keep you busy for a spell."

"Thanks, awfully, Your Majesty," grinned Saunderson. "But far be it from me to prevent the dears from gazing upon their king arrayed unto the lilies of the field and with forty-fives strapped to his cute little panties."

"Say, Mister," exclaimed Red. "If there wasn't no other reason, I'd take this king job so I could tell you where

you get off. Savvy?" But all this meant

"Come along, boys," I said. "We're keeping Sarayacu waiting. He has other wonders to exhibit."

"'Pon my word he's missed his vocation, absolutely," declared Saunderson. "He should be with Cooks or Lunds, you know; one of those conductor chaps who show tourists about the old churches and palaces, and all that sort of thing."

Opposite the door, through which we had entered the main room, was an imposing portal flanked by columns of red onyx, sculptured to represent entwined serpents, and supporting a lintel of black agate showing the condor-god in high relief. Drawing aside the curtain, heavy with gold embroidery, the priest ushered us into an enormous hall or open court, for only a portion of one end of the place was roofed over. In the shelter of the roof, upon a raised stone dais, was a massive chair or throne of deep-blue lapis with the arms ending in jaguar heads of gold. To the right of this was a smaller throne of rich green jadeite, while on the left was a third throne of rose quartz. Above the central throne a golden condor spread its broad wings like a canopy. Back of the green throne was a great golden sun, and behind the throne of pink was a conventionalized moon of silver. And the magnificence of the three thrones in their setting of gleaming gold was heightened by the fact, that elsewhere the vast room was absolutely devoid of ornamentation. The walls, of immense many-angled blocks of pale-gray diorite were without a trace of carving or sculpture with one exception. Cut deeply into the wall above the soaring condor was the mysterious inscription of eighteen strange characters or symbols.

"BY Jove, it's the most imposing throne-room I've ever seen," declared Saunderson in lowered voice. "But why the three thrones? That perfectly gorgeous blue and gold one for the king, of course; one of the others for the queen, don't you think? But who occupied the third, I can't imagine."

"The symbols behind each answers that question," I told him. "The pink throne with the moon is that of the queen, the green one with the sun is for the high priest—our friend Sarayacu."

Saunderson chuckled. "'Pon my word!" he explained, dropping his serious manner and reverting to his irrepressible flippancy. "I don't envy good, old Red his job. The parson on one side and a woman on the other—Jolly well between the devil and the deep sea, as one might say!"

"Well, I ain't worryin' none long as I don't have you settin' alongside me," Red told him.

I turned to Sarayacu. "Tell me, O priest of Urkon, why no ruler sits upon the throne of Wira Kocha? Awaiting the coming of the Red-haired One, has Achcaruna-sapi had no king nor queen to guide the people?"

The old priest shook his head sadly. "For half a thousand years no man of Chavin blood has been crowned king of Achcaruna-sapi," he replied. "And no woman may sit upon the sacred throne of Wira Kocha. When Manko Kelendin went forth with his warrior hosts to serve beneath the rainbow standard of the Inca, and met his death, the line of Chavin kings came to an end. Yet was it so foretold in the ancient prophecy. And knowing that what is to be will be, we of Achcaruna-sapi have awaited the day when Huata Piclu, the Red-haired One, should arrive to sit upon the sacred throne and mate with a woman of Chavin blood and beget a man-child, with red hair of the royal line, that their children and their children's children might forever be kings in Urkon."

My thirst for knowledge was getting the better of my caution, and heedless of the fact that I might be expected to possess knowledge of such matters, I questioned him further.

"You speak in riddles, O Sarayacu," I told him. "You speak of Urkon and of Achcaruna-sapi and of the Chavins. Though I am the Amautu of the Red-haired one yet I come from afar, and there is much that I do not understand. Are Urkon and Achcaruna-sapi and Chavin but different names for this one valley and this one people?"

The priest smiled. "There is much that I may tell you, O Bearded One," he said. "That you know naught of these matters is not strange. Nay, even the Red-haired One himself understands them not. Nor does he speak our tongue with ease, for so it was ordained and foretold in the long ago. And now it is the hour of rest, and my lords have journeyed far and are wearied."

"There's one thing we needn't worry about," I told the others as we left the throne-room and paused for a moment in Red's quarters. "Sarayacu knows that Red doesn't speak the language—says it was foretold by the prophecy that he would be a stranger. So we need not be afraid to ask questions or let the priest and the others know we are ignorant of many things. That makes it much easier. As soon as I can manage it I'll have a long talk with Sarayacu and find out all I can."

"Clever beggar, the parson," declared Saunderson. "No end of a sly old fox, I should say. Shouldn't be surprised if he knows us for what we are and is just spoofing the public with his prophecies and all that sort of thing."

"Possibly," I agreed, "but I'm inclined to think he actually believes in it all. It is almost impossible for a white man to understand the mental attitude or psychology of the aborigines. Superstition, a belief in the occult, intelligence, intuition and keen perception and common sense are all inextricably blended in their brains."

Red yawned. "Anyhow, that Cherisona girl ain't no fake," he declared. "An' there ain't nothin' phoney about this room or this bed. Me, I'm for hittin' the hay an' takin' a good, long snooze."

End of Part Two

Cryptography

MOST elaborate systems of secret writing have been devised, but it is probable that any system can be deciphered by a student of the very difficult subject and of the methods employed. In the story of "The Gold Bug" a very simple example is given of a cryptogram or secret writing, for that is the meaning of the word. Its deciphering was based on the relative frequency of letters in English language texts. In the printer's art the same proposition comes up. A font or fount of type means a set comprising all the individual types required to print any text. It would clearly be useless to have as many x's or y's in a font as there are e's and t's. The reader can count the e's in a few lines of any text and then in the same line count other letters and he will find a great difference. In the font of type the following figures give the relative number of letters approximately to be expected. It will be of interest to cryptogrammists.

e, 1000—t, 770, a, 728—i, 704—s, 680—o, 672—n, 670—h, 540—r, 528—d, 392—l, 360,—u, 296—c, 280—m, 272—f, 236—w, 190—y, 184—p, 168—g, 168—b, 158—v, 120—k, 88—j, 55—q, 50—x, 46—z, 22.

Buried in Space

By LAWRENCE SMITH

NATURE holds out to man her secrets, locked in her clenched hands, and she has but one finger open at a time. So said that distinguished astronomer and writer, Camille Flammarion, who, during his life entertained multitudes of Americans with his graceful pen. One by one scientists had pried open those reluctant fingers and found there the art of navigating the air, the wondrous radio, the X-ray. They had penetrated into the close-locked atom and revealed the marvels therein. The cold and black depths of the sea had been explored and the barren wastes of the Poles had been made familiar to the world. There was no place upon earth that man had not set foot on, and he now turned his attention and his inventive genius to travel in interplanetary space and the problem of neutralizing the earth's attraction, which had thus far held man as though in bands of steel, to her bosom.

It had long been assumed that gravity was an electrical manifestation and that it belonged in the field of magnetism. Working on this theory a Dr. Alison of the laboratory of the International Electric Corporation had succeeded, by the use of a high speed generator and the liberal use of certain of the rarer elements, in so changing the molecular structure of steel, as to render it neutral to the attraction of the earth. By means of this discovery and the centrifugal force of the earth, great hollow steel globes carrying scores of sightseers were carried to the surface of the moon and journeys there had now become commonplace.

On this particular morning, Dr. Alison, who was a stockily built, silver-haired sort of a grandfather type, was sitting in the library of the Steel Manufacturers Club in New York in company with two prominent steel magnates —Mr. Dobbs of the Continental and Mr. Barry of the Consolidated. These corporations had recently been awarded contracts for a number of the steel globes used in voyaging to the moon, and their presidents were now closing a discussion with the inventor, as to certain technicalities in their manufactures. This business being concluded, the conversation turned to the commercial value of certain minerals which had been found upon the moon. They included immense deposits of salt, sulphur, alum, and gypsum. Dr. Alison pointed out that these minerals were also abundant upon the earth and they were hardly valuable enough to warrant their transportation for so great a distance.

"Nevertheless," objected the well-groomed Barry, "I think the day is close at hand when it will be commercially profitable to bring even sulphur here. It is nothing short of marvelous that a voyage of about 240,000 miles is made in less than two weeks, with the maxium of safety and ease and at relatively little cost. The passenger enters one of these globes and lounges about in comfortable cabins and sleeps in luxurious berths. If he does not look through an observation port he never knows when the ship starts or when it lands for there is no perception of change of movement any more than we know that we are moving on the earth. It is safer and simpler to make a voyage to the moon than it is to ride from New York to San Francisco on a steam railroad."

"It was not always that way," said the

inventor, laying down a scientific magazine. "The first trip was awful. There was always the fear that we had provided insufficient insulation against the absolute zero of interstellar space. After we left the earth there was a sickening feeling of insecurity and uncertainty and the constant fear that the generators would fail and we would fall back to the earth. It was appalling."

"No doubt," replied Mr. Barry, "but that is all past now and the trip is safer than most journeys on earth. There is absolutely nothing to puncture the shell, for meteorites are either too few or too small to regard, and the moon has no satellite to bump into."

"PARDON me," said the inventor, "but the moon has a satellite. It is a very small one, however, and there is little danger of a collision with it."

"The astronomers have never found one," replied Mr. Barry.

"They will never find this one, either," answered the scientist.

"Too small, no doubt. A small rock, I daresay." Mr. Barry folded his arms, satisfied that he had solved this problem.

"No. It is not a rock."

"What is it then? You must have passed near it on your first voyage."

"Not at all. We were the authors of this satellite. We produced it."

"I know what it is," said the jolly Mr. Dobbs. "It is a piece of machinery from the ship discarded while *en route*. Or a part of the equipment.

"Yes," replied Dr. Alison thoughtfully, "in a way it was part of our equipment, or rather part of our crew. It is the frozen corpse of a man. This corpse is now slowly revolving about the moon with its arms by its sides; stiff and rigid as a log of wood."

Mr. Dobbs seemed to be quite interested at this explanation. He passed his cigar case to the inventor and to his competitor and leaning back in his chair lit one of the Corona Coronas. "Tell us about it," he said to Dr. Alison.

"I will," replied the inventor, "but I must first pledge you to silence. In the first place it would needlessly alarm travelers to the moon, and in the second place it would be shocking to the relatives of this man, provided any ever turn up."

Mr. Dobbs and Mr. Barry agreed to this and Dr. Allison began:

"You are aware," he said, "that my invention was developed on a very small scale in the laboratory. After I became certain of its success I looked about for some area where I could try out a ship sufficiently large to house me and the necessary machinery. To be free from cranks and curiosity seekers, I followed the example of the Wright Brothers and selected the long, sandy bar, bounding Pamlico Sound off the coast of North Carolina. I picked out a deserted spot about 50 miles south of Kitty Hawk, where the Wrights conducted their epochal experiments with their aeroplane.

"I needed a companion and helper and I entered into correspondence with Captain Dick Lawrence of the United States Navy Air Forces, for I knew him to be a daring and intelligent young man. He agreed to come with me and he proved to be invaluable in drawing up the plans, for he was a skillful draughtsman. The necessary materials were ordered with directions to ship them to the nearest town on the mainland. Dick and I then went over on the island and, with the help of two or three carpenters from the mainland, we put up a cabin and a workshop.

"While we awaited the arrival of our material, Dick and I tramped about the island. Our section of it appeared to be uninhabited and was covered with breast high bushes and dwarf trees. It was low, flat and sandy and in no place

was over fifty feet above sea level. This long sand bar has some name upon the map, but Dick and I, while gazing one night upon the star cluster known as the Pleiades, decided to christen the island 'Merope' after the lost Pleiad, who concealed herself for shame for having loved a mortal, and our ship was to be called 'Alcyone' after another Pleiad.

"On one of these tramps about the island we came upon a rude cabin, and as the day was cold with a drizzling rain falling, we knocked on the door, hoping for shelter. A young man came to the door and at first seemed to be unwilling to let us in. He needed a haircut badly, was unshaven, and negligent in appearance and looked like a tramp. We finally convinced him that we meant him no harm, and he let us in, and we sat down near the open fireplace. We talked with the young man for a few minutes and, gaining confidence, he told us of innumerable reverses he had suffered on the mainland, and which appeared to have embittered his spirit. He had fled to this island and was now living as a recluse. I saw that there was little danger of him communicating our plans to any one, and as we needed help I asked him to aid us in the construction of the 'Alcyone.' To this he agreed and we left after telling him when we expected the material to arrive.

"When the steel came, Dick walked over to the cabin and got the young man and together we went to the mainland and had the material transported to our workshop on the sand bar. Construction was begun immediately. The plans called for an interior diameter of 16 feet with two feet of mineral wool and vacuum insulation, thus making a huge steel globe 20 feet in diameter. The steel hull was made of segments welded together, and the interior was bisected with a steel flooring under which were the generators and their motors. On opposite sides of this floor were the two locks for communication with outdoors. They were simply heavily insulated steel cylinders, about 30 inches high and six feet long, and were provided with an airtight and insulated door with a glass porthole in its center. The circular door in the hull could be opened by means of mechanism in the cabin.

"Thus our cabin was a circular, domed affair with a steel cylinder on the floor on each side and a small table in the center. There were six observation ports provided and these could be connected with these tubes heavily coated with lampblack inside, which brought a reflection of the exterior world to mirrors on the table. They were about the size of a small stovepipe and made the cabin look something like a basement furnace with the hot air pipes extending in different directions.

"IT required about three weeks to construct the ship and then we made several trial trips, sometimes ascending as high as 120 miles above the surface of the earth. The machinery functioned perfectly, but we found that, unless the 'Alcyone' was heavily ballasted with mercury, she was liable to turn completely over, standing us on our heads or in other awkward positions. In our trial trips we always towed the ship well out to sea for when we came down the earth had moved to the eastward. On two occasions we remained in the air at a height of 12 miles and let the earth make one complete revolution under us. In a month's time we felt quite competent to navigate the 'Alcyone' in space and looked forward to a voyage to the moon.

"On several occasions we took along the sad young man, but he used to get on my nerves, with his continual wailing

about his misfortunes. His people had lost all their money and had neglected to provide him with a career; his best friends had deserted him in his adversity and even his sweetheart had abandoned him for another man. So when the time came for us to start to the moon, we sent 'Hopeless,' as Dick called him, back to his cabin but he must have overheard our plans as you will see.

"WE had applied to a large eastern university for certain data; notably an estimate of the time required to make the trip, using the earth's centrifugal force and the moon's attraction for propulsion, and allowing for the slackening of speed as the ship neared the surface of the moon. According to the figures received it would take us 11 days and 3 hours to make the voyage. As to the existence of an atmosphere on the moon and its temperature, we could get nothing definite; they varied with the astronomers.

"With the aid of the forlorn youth we provisioned the 'Alcyone' for sixty days. We deposited our wills and the plans of the ship with a banking institution with instructions to open them at the end of sixty days. At the hour recommended by the university we crawled through one of the locks into the cabin of the ship. After making sure that everything was secure, I started the motors and forty seconds later the 'Alcyone' left the surface of the earth.

"You will understand that we could not ascend to the moon directly over our heads, but must start at a time when that body was not over a third way around on its circuit, so that in a little over nine days we would be nearing its sphere of attraction. And so up we went, faster and faster, our speed accelerating every minute, although our motion could not be detected within the cabin save by watching the diminishing disc of the earth. By midnight that planet had become a great, cloudy circle; below us and away to our right was the bright moon rushing along at the rate of 37 miles a minute to meet us at the celestial trysting place.

"Up there is neither morning nor noon but always night. The sky is perfectly black and the stars shine steadily like colored jewels. The sun is an electric blue in color and its polar brushes are plainly visible. It is a fearful object to look upon and it would blind you to gaze at it without using smoked glass or some such device. The earth becomes a shield of rose and pearl and gold and is very beautiful to see. The markings of the moon become more plain; for a third of the journey she is bathed in a cold luminous fire and looks not unlike a great mottled ball of crystal.

"All these things we could see on the mirrors before us on the table. Dick and I sat there for the balance of the night enjoying the spectacle. Thus far from freezing with the cold of space, we found the temperature in the cabin to be warm, even hot. Our vacuum insulation had seen to that. I finally persuaded Dick to lie down on a pallet and take a nap. We were now about 12,000 miles from the earth and our speed may have been that of the rotation of the globe at Merope Island which is about 14 miles a minute.

"I was sitting there at the table looking at a reflection of the moon in one of the mirrors, when I heard a most unusual noise. I think my hair stood on end, for my nerves were in the highest possible state of tension. It sounded like a deep groan and appeared to come from under the floor—from somewhere in the hold. I awoke Dick and we descended to the engine room. The motors and generators were humming smoothly and everything seemed to be secure.

I was about to give up the search when Dick directed his torch down on the floor grating and saw some dark object underneath. We lifted up a section of the grating and there lay the body of a man with his face downward. We carried him up the narrow stairs into the cabin and laid him on the floor. We now saw who it was and guessed how he came to be under the engine room gratings of the 'Alcyone.'

"IT was no other than the sad young man, whom Dick had christened 'Hopeless.' He had overhead one of us mention the hour of departure, and unobserved had come back from his cabin and hid himself below the engine-room floor. There he had become saturated with the fumes of acid and the poisonous gases of the exhaust, some of which managed to leak from the motor cylinders. Incidentally, we used picric acid in the fuel compound. We revived him with a dose of aromatic spirits of ammonia and he talked lucidly for a while and we fully expected his speedy recovery. He was even beginning to wail over his troubles again and said that he had stowed away on the 'Alcyone,' with the idea that he was committing a kind of romantic suicide. But he failed to recover.

"We made a pallet for him on the floor near the table and there he lay, hour after hour, moaning and tossing with the 'Alcyone' shooting through space at the rate of 80 miles an hour. All he could stand on his stomach was a little diluted milk of the canned variety. He had been poisoned by picric acid and we had no antidote. After a few hours he grew calmer and went to sleep. In this manner three and one half days went by and we were at the beginning of the sixth day out from the earth. He then began to grow restless and to complain in his old vein or rancor. I finally lost patience with him and said:

"'Listen, Hopeless, it is you who have forgotten the world and your very humble place it. The world has not forgotten you.'

"I was soon sorry that I said this for about five minutes later Hopeless, with his face yellowed with picric acid, turned over on his side and died.

"We were now faced with a problem. What were we to do with the body of the unfortunate man? The cabin was suffocatingly hot but we did not dare let in any of the cold of outer space. The descent to the earth would take far longer than the time it had taken to gain our present position. We had no ice and no cooling system of any kind and it was very evident that we must do something before long.

"While Dick and I sought for a solution to this problem another day went by with the beautiful disc of the earth shrinking and the moon's apparent diameter gaining in size. It now had lost all of its silvery lustre and appeared like a huge ball of pitted clay, floating silently in the heavens.

"Poor Hopeless lay on the floor of the cabin with a sheet thrown over him. We had taken a few pitiful trinkets from his pockets and placed them upon the table. They included a rusty key-ring with one key attached; half of a lead pencil; a cheap and broken pocket knife; a pocket book containing a photograph of a girl, which we judged to be that of his former sweetheart, and a few coins. But what should we do with his body?

"Dick and I discussed this over and over again. If we did take him to the moon with us, there was no guarantee that we could leave him there; we might find temperatures of boiling water or worse. Dick suggested that we put the body in one of the locks and push it

out into space. The poor fellow would fall a hundred thousand miles and more until he struck the upper layers of the earth's atmosphere. Then there would be a flash of fire and some one on earth might note a flaming meteor as Hopeless ended in a blaze of glory. The idea shocked me and I cast about for a better plan.

"A careful measurement of the apparent diameters of the earth and the moon showed me that we were now nearing the periphery of the earth's attraction and which lies 215,756 miles from the earth and 22,854 miles from the moon, using mean distance as a basis of calculation. A half hour before we reached this 'No Man's Land' of the two bodies we placed the corpse of the young recluse in the lock and closed the inner door. At the required time I opened the door in the hull an inch or so, fearful of the terrible cold of interstellar space. Nothing happened and I opened it a fraction of an inch more and so on until it was fully drawn back. The insulation in the cabin door of the lock proved magnificent. Some frost formed upon this door and on the thick glass porthole through which we stared at the body inside, resting upon our hands and knees. The outer door being fully open Dick stopped and reversed the engines of the 'Alcyone' and the body slid gently out into space and began its eternal journey about the moon."

The inventor paused and Mr. Barry asked a question.

"Why should it not have fallen directly to the surface of the moon?"

"Because we were approaching the moon at a tangent and the centrifugal force given to the body by the 'Alcyone' was greater than the moon's attraction, which here was negligible, it therefore became a satellite of the moon and will revolve about that globe until the end of time."

The inventor picked up his hat and arose to go. "You will understand," he said to his audience, "that it would be inadvisable to make my explanation public. Gentlemen, I must be going."

"Good by and good luck," called Dobbs after the retreating form of the Columbus of space. "Well, Barry, if that poor boy has any relatives on earth they will never learn of his grave from me."

"One of the few cases," remarked Mr. Barry as he picked up his paper, "where the truth would do no good and very likely much harm."

THE END

BOB OLSEN and JOE SKIDMORE are to be noted as contributing to our November issue.

The first writer with "Nökken of Norway," a thrilling story of Norwegian tradition with the exact atmosphere of that country and Mr. Skidmore gives one of the best of his recent productions.

In the Realm of Books

Conducted by C. A. BRANDT

SEVEN FAMOUS NOVELS:

"The Time Machine," "The Island of Dr. Moreau," "The Invisible Man," "The War of the Worlds," "The First Men in the Moon," "The Food of the Gods," "In the Days of the Comet," by H. G. Wells. Published by Alfred Knopf, 2 West 45th St., New York.

Why "When the Sleeper Wakes," which is in my opinion the fifth best of Wells sociological Fantasies, was left out of this collection is not quite clear, perhaps they did not know about it in 45th Street, but anyhow the publishing of a Wells Omnibus is a very creditable effort on the part of the publisher, but whether it will be so very profitable is a question which I cannot answer. At any rate, I believe it will be a very welcome addition to the libraries of those people who buy Shakespeare, Maupassant, etc., in one volume.

Wells' stories are so well known to our readers that to go into their various contents would be equal to taking along to Munich a case of near-beer. At the time when science fiction became definitely recognized as a new type of literature, the more or less sociological novels of Wells were considered Classics, but since then they have been surpassed by very many scientifically up-to-date and much less verbose writers.

The price of the book is $2.75.

"Intrigue on the Upper Level," by Thomas Temple Hoyne. Published by Reilly & Lee, Chicago. 292 pages, $2.00.

This is a very clever and entertaining book, notwithstanding the fact that it belongs to the "Utopia" group.

The scene of this book is Chicago in the Year 2050. The educated proletariat is just waking up from its slumbers on the beach. Our Hero Jimmy and his friend Dr. Edgerton watch a young lady emerge through a heavily guarded doorway of the Upper Level and descend a narrow stairway leading to the beach. The young lady glistens with diamonds, and is promptly attacked, and would have been robbed of her jewels if our heroes had not intervened by beating down her assailants. The Upper Level guards also take a hand in the fight, and in the mix-up Jimmy and the Doctor are pushed through the guarded entrance and are now in the forbidden realm of the Upper Level. The girl is Vivian, daughter of the all powerful "Master," George Ransler. Ransler is supreme Master of every commercial enterprise, banks, factories, etc. In other words he is in absolute control of all and every commercial activity in Chicago, known as the "System." He is surrounded with hundreds of bodyguards and countless safety devices and is practically inaccessible. His household is like a large fortress, filled with secretaries, menials, bravos (gun men to you), etc. With the complete downfall of the capitalistic system, the then already very powerful gangsters took hold of things, and the vicious capitalists were superseded by them. In other words, gangsters rule instead of banksters. The dear, stupid populace did not mind the change much as long as they had baseball and prizefights, and were allowed to vote, and could celebrate the National Holidays, listen to the sacred blah-blah of professional politicians, and were allowed to lose their money on the stock exchange. Most of the people were almost always out of work, and were kept alive by a sort of dole and free rent. Of course, the people of the lower level were seething with ideas of revolt, but lacked leaders.

These are very interesting chapters, describing with painful accuracy the road the world is traveling on.

Our heroes finally meet the "Master" and are granted permission to visit the great underground laboratories, and here we have very interesting sidelights on the trend of modern manufacturing.

It seems that the System maintained one large laboratory solely for the purpose of perfecting the production of worthless and shoddy merchandise, the underlying idea being: that the sooner a certain article became useless, the sooner it had to be replaced.

The "Love" element also enters the story. Vivian, a drug addict falls in love with Jimmy, but is repulsed because Jimmy is in love with Miriam of the lower level.

Miriam is the leader of a revolutionary corps of girls. Vivian has Miriam kidnapped. This kidnapping leads to open revolt. In the ensuing Chaos, Vivian kills her own father, the "Master," and the discovery of the production of synthetic gold becoming public property, the vicious gangster system crashes.

The Far Seeing Genius of George Ransler created a sort of Island Kingdom, called "New City," founded on strictly humanitarian and utopian lines and ideas, and here under the leadership of Jimmy a new civilization arises.

"Intrigue on the Upper Level" is a thought-provoking and disturbing book, well worth reading.

In this department we shall discuss every month topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine. In case a special personal answer is required, a nominal fee of 25c to cover time and postage is required.

A Spirited Letter from a Sixteen-year-old Correspondent of "Aussie" (Australia)

Editor, AMAZING STORIES:

I have been reading "our" mag for almost two years, and as this is my first letter, I have a few things to get off my chest. Improvements: 1. Cut out sub-titles. 2. Reduce size. 3. Introduce new type stories away from the cut and dried plots. Now for a few darn good stories.

1. Stellarite.
2. Eternal Mask.
3. Swordsman of Sarvon.
4. Prof. Jameson Series.
5. Lemurian Documents.

Now! Why? Oh why can't you guys lay off Morey? He's OK, but not so Sigmund. No sir. It was with a gasp of horror that I received the July issue, a fish in space?

Doctor Smith sure can dish it up. Triplanetary is the goods, so can John Campbell, Jr., H. Vincent, Bob Olsen, and Skidmore.

You fellows must have a queer idea of Australia. I read a story in another S. F. mag. and I've never had such a laugh in my life. Central "Aussie" a jungle, ho ho, and the animals! My ribs are still sore. Oh, well, I'm wandering off the point. A. S. well deserves its title "Aristocrat of S. F." Can't you leave out love stories, they have no place in A. S., they are so much bunkum. I suppose I'm getting selfish in my wants. Keep up the good work, and all the best.

Cecil Sheppard,
555 Horelsh Albury,
New South Wales,
Australia.

P.S.—By-the-by, don't think this is the ravings of a lunatic. I'm just 16 and quite sane.

(We have found by experience that our most definite and frequently severest critics are boys of the years preceding seventeen. This letter is an example of rather well put criticism. Your selection of authors for approval coincides very closely with our own, and this letter from the Antipodes has a delightful freshness about it and brings with it a sort of pet name for the continent. We wish you had told us more about the interior of the continent, "Central Aussie" as you call it. You must give us credit for using love motives in our pages to a very small extent. In a few years you will have a different feeling about the above motive than you have now—but we do like boys. We are sure, as you say, that you are quite sane and we will be glad to hear from you again.—EDITOR.)

An Appreciation, We May Call It, From An English Reader.

Editor, AMAZING STORIES:

Being a new reader of the magazine, may I add my criticism in Discussions? It is very difficult to obtain copies here, but those I have read, have been very interesting. "The Bridge of Light," I considered the best in my small selection and it is not possible for me to follow the Discussions on others, but I was very much amused by R. McNairn's criticism in the June, 1933, copy. His commencement gives a good idea of his character. He admits starting to write five letters; surely weak on his part? He should try to write a story himself and realize the knowledge required. For instance, he says the hero and villain and the fair young thing are dumped upon Mars or Venus. Surely the fair young thing has as much right in AMAZING STORIES as in any other magazine. I am no scientist, but the laws of life include the necessity. Then he goes on to criticize the illustrations. Has he not learned that a little give and a little take is necessary? I suggest that he wait until in the mood to read the magazine. So much happens to an otherwise good story, if the reader has just had a difference of opinion.

F. C. Williamson,
40 Clipstone Street,
Leicester,
England.

(We are glad to follow a letter from Australia with one from the mother country as perhaps Americans and Australians may call it. It is noticeable that our English correspondent does not object to having a heroine in a science fiction story. This letter is an excellent sequence to the preceding one and we are glad to find that both correspondents are rivals in good nature.—EDITOR.)

A Letter of Appreciation and Favorable Criticism of Some of Our Authors

Editor, AMAZING STORIES:

No doubt, as George Bernard Shaw says (and he must be getting old and forgetful that he concedes to the U. S. even this complanetary statement), "Edgar Allen Poe is the greatest American writer." But for that matter, Shakespeare is England's most famous author—yet who wants to read "Macbeth" in a popular magazine?

The cover on the August A. S. is certainly Morey's masterpiece; it is truly a work of art

Dr. Keller rang the bell loud and long with "Life Everlasting," the two-part serial concluding in this issue. He seems to have an insight into human nature not possessed by others. The more of Keller you read, the more you want to read.

"The Velocity of Escape" proved thrilling and gripping, but Skidmore has done much better work, his "Romance of Posi and Nega" for example. When do those two atomic lovers return?

Your Editorial, "Old-time Writing—Papyrus and Vellum," was the best so-far this year. Please answer this question. which is the most durable, papyrus or vellum? I mean when it's in constant use, not laid away to rot.

Kostkos' "North God's Temple" was the first tale by this author that I ever really enjoyed. Coblentz' story also made good reading.

Alvin Earl Perry,
Box 265,
Rockdale, Texas.

(We found Dr. Keller's story, which you liked so much, quite inspiring. His talent as a writer is backed up by his long experience as a physician and psychologist. His "Life Everlasting" brings out that very knowledge of human nature to which you refer. "Posi & Nega," you will be glad to hear, will soon appear again in our pages.

Of all substances used for manuscript or printing, natural vellum may be taken as far the most durable. Artificial vellum certainly cannot be considered as lasting as the natural product. Papyrus is astonishingly durable, but will not stand abuse the way vellum will. There is a certain amount of interest in following up the work of some of those whom we may call 'our' authors. We feel that they are, in many cases, doing better and better work. Many of them are technical men Harl Vincent and Kostkos are electrical engineers.—EDITOR.)

A Letter from Mexico, Which We Are Glad to Print

Editor, AMAZING STORIES:

I have been a constant reader of AMAZING STORIES for more than five years, ever since I lived in New Orleans; but I am afraid I will not remain loyal to you if you continue printing such stuff as "Measuring a Meridian" by Jules Verne. Why, I read that story when I was ten years old! I realize it costs you less to print one of Poe's or Verne's works than to have Dr. Keller write a story for you, but I don't give a hang if you raise the price of the mag to fifty cents as long as it has good, up-to-date stories by Williamson, (whose "Stone from the Green Star" we still remember) Bob Olsen, Dr. Breuer, Neil R. Jones (more of (whose 'Professor Jameson' stories we still await), Francis Flagg (of Ardathis stories fame), Abner J. Gelula (who hides behind that name?), Harl Vincent (a pioneer science-fiction author), Edmond Hamilton (who has done most of his best work for another magazine), Charles R. Tanner (Of 'Tumithak' fame), Lewis Burtt (Shades of Lemuria!) and last but not least, the best science fiction author in the Universe, Dr. David H. Keller!

Now, here is a plea I am sure most of the readers will agree to; please avoid anything weird or supernatural in our mag. If we wanted to read that topic we would buy weird magazines. Such stories as "Ancients of Easter Island" and "The Last Earl," especially this last one, are not fit to appear in AMAZING STORIES.

I would like to correspond with any Science Fiction fan, especially a Keller fan, from far off Australia. Any letter from the States will be gladly answered.

Now I want to say a few words for those mighty warriors of the pen, whose letters never fail in Discussions. I am referring to Forrest J. Ackerman of Frisco., Milton Kaletsky, Neel Mariella of Philly, Jack Darrow of Chi., and Fred Anger of Berkeley. The Editor never seems to notice the persistence of these writing nuts, but it is a good idea, that of writing often stating your likes and dislikes. I have yet to find Ackerman missing in two successive issues of any science fiction magazine.

I have quite a collection of science fiction magazines (one hundred and eighteen to be exact), and I would like any fan living in or around Mexico City to communicate with me and possibly do some trading.

Recently I saw a very good idea in Discussions. Someone suggested that you should print a picture and biography of a favorite author each month. This has already been done by the Science Fiction Digest (now Fantasy Magazine), which by the way is getting too weird for real science fiction fans.

Regarding size, paper, etc., everything is all right, but don't keep changing everything every month.

About the illustrations, Morey is O.K. for the inside illustrations, but let Sigmond continue the covers.

Well Editor, I suppose you are bored stiff with me telling you what to do and what not to do, so you probably will send this letter, envelope and all to the world famous "W.B."

Carlos Diaz Koller,
Apartado Postal 401,
Mexico City, Mexico.

(The story "Measuring a Meridian," by Jules Verne—does not deserve to be called "such stuff." If you read it attentively and studied out the science in it, we are sure you would give it a better send-off. The description of the Arego measurement of the meridian as stretching from Dunkirk to the Balearic Islands should not escape the reader. It disposed so effectively of the ellipticity of the earth's polar contour. It was what may be called a mechanical way of getting rid of the necessity for a correction. We are glad to inform you that Abner J. Gelula is the true name of the author. We do not know what Dr. Keller will do—he is receiving such whole-

hearted appreciation from his readers. You are not the only one who objected to the "Last Earl," but we do not feel as you do about the story "The Ancients of Easter Island." You will find preceding your letter a very good epistle from Australia and we think that the writer might prove to be a very interesting correspondent for you. We feel that we have no room for an adequate biography for any of our authors, our own disposition being to expand the Discussions.—EDITOR.)

A Compliment for Morey's Covers

Editor, AMAZING STORIES:

This is my second attempt to get into the Discussions Department—and I hope I break the ice this time, as I have a few vital things to say about AMAZING STORIES.

Before me is the May, 1934, issue and the first thing that strikes me is the magnificent cover design by Morey. Why doesn't he always do such outstanding work? His covers are usually good but woe to the interior illustrations! These appear to have been done in some great hurry, thus he has only had time to scribble. Take, for instance, the picture on page 92 and see the mass of scribbled lines and circles that try to represent space-ships. Horrible looking things, to say the least. Now such a good magazine as AMAZING should have good drawings inside as well as on the cover—why isn't this so? Morey—when he likes—can do ultra-good work, but please command him to hoist his socks up a bit!

Then I come to Dr. Sloane's chat. This is always good, no matter what the subject is. I don't think anything further can be said about that.

The size of the mag, is another question. So many readers wish it was back to the large size. I do, too, for it made it stand out above all others and dominate the news-stands. This small shape is quite handy I'll admit, but when I carried the larger ones I felt a sense of having something better than just a mere magazine under my arm. It definitely *is* a different magazine, therefore it should be made to appear different from every angle. Still, I suppose its no good me wailing about that . . .?

Now for the contents:

Who wants to read about Jules Verne? I ask you, why put 1854 into a 1934 mag? Haven't you enough modern authors that can dish out stuff to modern people—and therefore must fall back on ancients? Most of Wells and Verne books are printed separately and have been read long ago! May I discreetly murmur that they be left out of all further issues?

"The Ultra-Gamma Wave." This was a swell story. It had this, that, these and those.

"The White Dwarf." Here we deal with great, nay, titanic forces. We move worlds, we see Venerians . . . millions die . . . the sun shrinks . . . and the earth grows cold! All that and some more is crushed into a small yarn, incidentally spoiling it and making it appear crushed. Great Pity! The story would have looked good if it had been spread out a bit.

"Dr. Grimshaw's Sanitarium." Very good.

"The Lost City." I looked forward to the next instalment of this humdinger. "Terror Out of Space." I wish I hadn't missed a couple of parts of this yarn. I like it.

"A Dream". So we have a little poetry! I suppose this is to sooth our nerves after reading about some awful and bloody fight with the Moon-men? Well, we don't want our nerves soothed thanks and I think the space given to poetry could be used up either by some scientific data or a photograph. Howzat?

Somebody once said they didn't like the "love" in science stories. Now, can you imagine for one single moment a series of long stories dealing with machines, men, war and space-trips without a woman coming in somewhere? Its only natural that a woman should appear—it helps the story to flow along with more ease, besides adding that little "something" that makes more of a man out of the hero. Stories without women seem to look like a series of black-and-white pictures. You want a little color! And yet it mustn't be over-done—just little touches here and there to whet the appetite so to speak.

The Discussions column is the first thing I read. It's almost as good as a story—and I see that a lot of folk ask other folk to write to them. May I add my cry to this? I'd very much like to get the feminine slant on all this Asteroid stuff. If anybody does write to me I shall answer them. I have here a small club where I go to discuss Interplanetary ideas and suggestions. You'd be surprised how far we've delved into this. We always welcome new correspondents.

Another word about authors. Can we have some more of Stantan A. Coblentz? Campbell? Keller? Lets have some more like "Beyond the End of Space". That was a corker. By the way, I read a yarn "Politics" the other day in an Amazing—and thought it was a waste of space!

Well, I hope this finds its correct place in the columns as you said you welcomed bombshells from England. Fire as many back as you like—I can take it!

L. A. Petts,
21 East Court,
North Wembley,
Middlesex, England

(You are going to appear in our "Discussions" where an Australian and a fellow countryman of yours have appeared with excellent letters. When we say 'excellent' this word is meant to imply far more than dry seriousness and praise. Where our efforts meet with reprehension, deserved or undeserved, we often think the letter is excellent. A broad view of things goes to make all kinds of criticism acceptable—the unfavorable will perhaps season the rest. If nothing but laudatory letters were published in 'Discussions,' they would be pretty dry. Such

letters as yours give atmosphere to these pages. —EDITOR.)

The Truth Will Make a "Good Story"

Editor, AMAZING STORIES:

I like your magazine because there is a certain amount of science in the stories. I think you would make more sales and please your present customers more by publishing a story of some laboratory work that the scientists of to-day are working on, such as making "heavy Water" or "The Bombardment of the Atom". It would be more preferred that these stories be true and written by one who knows about the work. You may come back at me by saying you can't get an interesting story from anything like that, but I know a good many of the readers will say that the truth will make a good story.

Charles Baker,
513 Fifth Avenue,
Langeloth, Pa.

(Laboratory experimentation correctly described, hardly seems to lend itself to science fiction. An attempt to carry out what you suggest would lead to stories that might be termed dry. We are glad however, to publish your letter and hope that it will give a good hint to some of our authors, but remember that we are publishers of science fiction rather than of science truth.—EDITOR.)

An Anonymous Appreciation of "Hastings, 1066"

Editor, AMAZING STORIES:

I have read the story "Hastings, 1066" written by L. B. Rosborough and enjoyed it very much. Thought you might be interested in hearing.

No name,
Springfield, Illinois

(The story mentioned in this letter, which the author apparently forgot to sign, has received appreciation. We feel the same as you do about "Hastings, 1066." It was a very fine short story.—EDITOR.)

Measuring a Meridian Not Approved Of

Editor, AMAZING STORIES:

I have just finished the July issue of your most wonderful publication which is illustrated by your most wonderful Morey.

David H. Keller's "Life Everlasting" is perfect—there is no one quite like "the Grand Old Man of Science Fiction"—Dr. Keller.

"The Lost City" came to a wonderful conclusion in this issue also. "Beam Transmission" too was fine, and the "Fourth Dimensional Auto-Parker" was done in the usual Olsen style—good.

I read the first installment of "Measuring a Meridian" by your old timer which almost 'gaged' me!

Why do you insist in reprinting these stories —not one letter in your publication has had any good word for them!

However, I shall always continue to buy your publication.—Morey's illustrations are fine.

J. H. Hennigar,
East Tawas, Michigan

(We do not know how Dr. Keller will recover from the praise which he is receiving from our readers. Certainly in "Life Everlasting" he covers himself with glory. Through it there runs a strain of psychology of knowledge of human nature and of the true charity which is love of your kind. You should explain to us what is meant by the word "gaged". We can make a good guess that you did not care for the story, but if you appreciated all that was in it, you would have had a different feeling about it.—EDITOR.)

A New Science Club. Scientifiction Association for Boys

Editor, AMAZING STORIES:

I hope you will do me a favor and publish this letter.

It announces the reopening of what was formerly, "The Science-Fiction Association for Boys".

The name has been changed and more magazines have been added to the Club's Stf. book and magazine files.

The name is now, "The Scientifiction Association for Boys".

It is a club for boys up to the age of 19 (nineteen) years.

The dues are 10c a month. They are used to buy more magazines and Stf. books.

Anyone wishing to join for one month's trial membership, send in 10c (cash and two Stf. magazines which are given to the Club's files.

When your membership expires and you do not wish to re-join, we send your two Stf. magazines back.

We will publish a monthly paper which will be given free every month to our members, if we get enough new-members.

Please write to: Henry Ackerman, 5200 Maple Ave., "Pimlico", Baltimore, Maryland if you wish to join.

We answer all letters.

Now that that's done I can tell you my opinion of your magazine.

The best stories lately were, "Triplanetary", publish more like it, "The Lost City" what a story! "Beam Transmission" and "Subjugating the Earth". Have more like them.

I will not say anything about my dislikes as no doubt other readers think those stories excellent, and I do not wish to be arguing by mail as I am busy enough!

Henry Ackermann

(We have always been glad to publish notices about Science Fiction clubs. We have a sort of paternal interest in them, and in your case, the fact that you are organizing a club for the young, gives it a special touch which we consider very interesting. We think Dr. Smith was up to his usual high standard in "Triplanetary."—EDITOR.)

An Excellent Letter of Praise and Criticism

Editor, AMAZING STORIES:

Yes, beyond a doubt, the superb Dr. Keller is at his best in the current serial, "Life Everlasting". Keller has always been in my estimation one of the top-notchers and so does he continue to be, as is proved by "Life Everlasting." And although the narrative is written around an old, rehashed theme, it nevertheless will stand out among the "dozen best," because of the unexcelled way in which it is written.

And the same may be said of each of the others in the July issue. They are "the cream of the crop."

No doubt ye ed, is tired, yea, very weary, of ye readers' constant scolding upon this point or that point, suggesting and urging that this be done, or that be done. And yet that is the only means by which the governing body (readers) can rule the magazine. So now that you've received in the former paragraphs the posies, you must receive the "custard pies".

First, and always first: WE WANT LARGE SIZE. Did you get that? *LARGE SIZE.* Second, Don't improve the stories, it can't be done. (No—I'm not crazy). Third, get Wesso back. And last, get us out a quarterly, quarterly. And of course, keep a reprint Quarterly. Amen.

More poises—

Well do we remember Charles Cloukey's masterpiece, "The Swordsman of Sarvon". And now 'tis time for another of the Great Cloukey's productions. Let's have it soon.

And a final suggestion about reprints. Use those stories printed in the first four or five years, and discontinue the works of Poe and Verne in the monthly. Now, the reprints in the QUARTERLY ARE EXCELLENT. Re, "Bartons Island", *et cetera*. We might suggest, "The Green Splotches," or any of those numerous Balmer & McHarg stf.-detective stories; *re*, "The Hammering Man", "The Eleventh Hour," etc., for the monthly, "Station X" would make good material, as would "A Columbus of Space."

At least choose those stories from back issues that are particularly hard to get, so that those who have not read them can.

And one more suggestion please. Morey should work a little more color variety into his covers. For instance, his June and July covers were in nearly the same colors, as were the March and April. He should have an entirely different color for succeeding issues. Use a green cover, or a purple one. Merely for variety.

And I remain a friend while the small size prevails, and a sincere devotee when the great day comes, when good old A. S. is one again 9×12.

Lewis F. Torrance,
802 College Avenue,
Winfield, Kansas

(As we go over these letters for the Discussions, it seems that each one has a better word for Dr. Keller than the last. We have always felt that there is a peculiar touch about Dr. Keller's work that makes it quite distinct from that of other authors. His technical knowledge makes him a peculiarly authorative writer on such topics as those embodied in "Life Everlasting." We are not tired of being scolded. We have had long practise at "standing the gaff". The question of size is a perplexing one. Many prefer the library size, as it now is, which brings it in line with the highest grade magazines that are published. A change in size should be done at the beginning of a volume so we have a good many months to think about it before doing anything. The last quarterlies have pleased you and we are glad of that, because it was really an experiment using nothing but reprints.—EDITOR.)

The Question of Large Size or Small Size

AMAZING STORIES

Editor, AMAZING STORIES:

It was with the greatest pleasure that I picked up the July edition of our truly fine magazine and it was with the greatest sorrow that I laid it down again having read the issue from cover to cover which left no more for these eager eyes to read.

The editorials are scientific gems which are worth the price of the magazine alone. I have noticed from time to time how some critic has attempted to find flaws in the excellent science contained in the editorial and every time it was the critic who was wrong and not the editor. The editorials contain facts repeated in almost every scientific text, but they are never presented elsewhere in such a pleasing, interesting manner. No subterfuges are used, which will lead the reader through dubious passages of thought, but they are written in a clear, concise and understandable language. I believe I am speaking the opinions of most of the readers when I make such a statement.

One thing Mr. Editor, which just pierces my heart, is to go in a newstand have to pick up my beloved friend from a mess of cheap fiction, just because of the sizes being alike. I am one of them "queer types of fellows" who likes to revel in tradition. I was raised on a large size A. S. which always used to be among the other dignified scientific magazines. Therefore it is quite a step down for me to have one of my best friends descend among the common trash. I know that the contents are the same and all of that, but how much better would my pride feel if it were its former large self. Some how or other I cannot get used to A. S. being anything but an aristocratic, large size magazine. Sometimes I feel that our dear editor has feelings much akin to those I have expressed in regard to tradition, even if they are impractical at times, and he also would like to see the large size back. At least he hasn't made any false statements, such as that the readers demanded the small size, as others have done in a similar circumstance. I challenge

any reader to give any real reasons why the small size is better than the large.

John S. Steadman,
2314 North High Street,
Columbus, Ohio

(If we were to return to the large size of magazine, it should be done at the beginning of a volume as we have said before. Whatever is done in the magazine will be subject to criticism so we can console ourselves with the reflection that we cannot please everybody. We wish to thank you for your kind appreciation of our efforts.—EDITOR.)

A Tribute to the Author of "Hastings, 1066"

Editor, AMAZING STORIES:

We have been reading your magazine for some time and enjoy it very much. The editorials are very good. The best story in the last issue was "Hastings 1066." This is one of the type of stories my husband likes and wishes he could write. Whoever wrote that was clever to the *Nth* degree.

Here's to your success and to the Health and Future of L. B. Rosborough. Isn't he a new writer?

Mrs. Alfred T. Mark,
Chicago, Illinois

(We have always wished to get more letters from lady readers and in this case one, whom we know is a charming wife, brings her husband into the letter in a very nice way. "Hastings—1066" is the first story we have ever published by Rosborough, so he is a new writer as far as we are concerned. We shall hope for more from him.—EDITOR.)

Back Numbers of AMAZING STORIES Wanted in Exchange for Books

Editor, AMAZING STORIES:

I have been reading your magazine for the past five years but have never bought them consecutively. I would like to get a number of old copies of your magazine in exchange for some books I have. I would like to get a complete set of back numbers because during this five year period I have started many serials and finished very few. That is one thing I wish to compliment you on, your serials. Occasionally a short story gets in that I don't think is up to the general standard, but over a period of years your serials have been interesting and scientific. Anyone interested in exchanging AMAZING STORIES or any other science fiction for books by Edgar R. Burroughs from the 'Tarzan' series, or his 'Mars' stories can get in touch with me at the above address. I also have other books by Jack London, Zane Grey, Rex Beach, Talbot Mundy, Rudyard Kipling, that I would be willing to trade. I hope you will print this letter because I certainly would like to get those back numbers and this is about the only way I can do so.

Joseph H. Doerfler,
1020 West 8th Street,
Appleton, Wisconsin

(You will find several letters in the Discussions in recent issues offering back numbers so we think you will have little trouble in completing your set. It is a comfort to have our serials appreciated. They are never poor. We hope you will succeed in your quest.—EDITOR.)

A Good Word for Discussions. Back Numbers for Those Interested

Editor, AMAZING STORIES:

I have been a constant reader of our magazine since March 1927. That I still read it is sufficient testimonial to the regard in which I hold it.

Discussions is a favorite department with me and I always read it first. In reading it, I have noticed that many new readers ask concerning back numbers. I have collected science fiction for a number of years and as a result have a large collection.

It is now necessary to dispose of it and I would appreciate it if you could find room to print this letter.

I have a file of AMAZING STORIES, both monthly and quarterly, dating back to March, 1927. I desire to dispose of them and would be glad to hear from anyone interested.

I also have a file of other science fiction magazines dating back to 1929.

All magazines are from my own private collection and are in perfect condition. All covers and contents are intact.

Thanking you for your kindness and wishing you every success for the future, I remain,

Carl R. Canterbury,
1527—11th Avenue,
Moline, Illinois

(We have published many letters from readers who offer magazines for sale but we never hear of whether the correspondents have had good or bad luck with them. The letter published just ahead of yours is requesting back issues. Why not try to get together on this?—EDITOR.)

An Interesting Appreciation of Our Efforts. Correspondence with Other Devotees Asked for

Editor, AMAZING STORIES:

I have been reading AMAZING STORIES off and on now for some three or four years. Once in a while I buy a copy of one of your competitor's publications, but am forced to return to A. S. The stories in "our" magazine are of the high class, "finished type," that appeal strongly to the more mature mind. I find that your stories are not of the "Wild West" type with ray guns spitting and space ships biting the cosmic dust.

Dr. Smith's new "Interplanetary" did not impress me as being as good as his "Skylark Three." It was very absorbing reading nevertheless. Stories by Verrill, Brewer, Keller, Leinster *et al*, are always welcome.

I am interested in practical as well as speculative science. I have a small laboratory in which I try to duplicate some of the things I

read about. If this is printed I would greatly appreciate the receipt of letters from science-fiction enthusiasts who are willing to discuss the practical attainments of science as well as the more ethereal possibilities.

Rudolph Zinna,
256—11th Avenue,
Astoria, Long Island, N. Y.

(We have never been informed, or very seldom, of how successful an appeal for correspondence has been, but we should think that an appeal from a practical experimenter with his own laboratory would meet with the best kind of response. We hope this will be the case.—EDITOR.)

An Irish Boy Writes a Most Friendly Letter

Editor, AMAZING STORIES:

It is three years since I first read AMAZING STORIES and since then I have read every one I could get. It is not easy to get them here in Ireland so I consider myself lucky whenever I obtain one. My only regret is that when I read about the wonderful offers made by your department from time to time, they are not available over here. I am extremely interested in all science fiction magazines, and not one of them escapes me, when I have the luck (and the money) to see them. I hope that you will publish this letter so that the rest of your readers will know that at least one Irishman, or rather boy (I am eighteen) wishes you the best of luck and prosperity.

You will notice that I am not criticizing any of the stories, and the reason is that I don't know enough science, although I am learning fast. At present I am wondering when I shall see another AMAZING STORIES for their appearance here is, to say the least, irregular. I shall get the April issue if I have to go over all the bookshops in Dublin.

Richard G. Doyle,
24 Golden Bridge Ave.,
Dublin, Irish Free State.

(AMAZING STORIES is now selling in England in the Woolworth stores as well as on the newsstands and there should be little trouble in getting it in Ireland. We are glad to hear from the sister Republic across the waters. Your letter requires no answer, but we can assure you that we are delighted to hear from you and shall hope to receive more of your letters.—EDITOR.)

Gravity Is Not a Phase of Electricity—It Attracts But Cannot Repel

Editor, AMAZING STORIES:

In the Discussions Column of the May issue, H. J. Marks asks, "Why cannot a ship be built to discharge a positive current at the earth, thus reversing gravity's action" on the theory that like poles repel and that "we regard gravitation as a potential current of negative electricity attracting matter to earth."

He has evidently completely forgotten what gravity is. I quote from memory. "It is that force which acts so that every atom in every body attracts every atom in its own and in every other body with a force which varies inversely with the square of the distance between the centers."

Consequently, were the force to be reversed, every atom in every body would repel every atom, etc., and every thing would fly apart.

Therefore his theory is entirely incorrect. Consult any physics book.

Incidentally, the May issue was well written in spite of too many serial stories. The cover was good.

Albert Field,
364 Beech Spring Road,
South Orange, N. J.

(The point involved in this letter, which is in answer to a previous letter in the Discussions Columns, is complete in itself and it needs no comment. A good answer to the original correspondent might be for him to try to build a model of the ship he describes, no matter how small.—EDITOR.)

A Canadian Letter About Rays Principally

Editor, AMAZING STORIES:

Thanks for getting your magazine back into Canada again. After being without it for a couple of years, because of the duties, you can imagine how I felt when it made its reappearance on the newsstands a few months ago.

I must compliment you on the stand you have maintained in most of your stories. Although only a high school student, I am greatly interested in science of every kind. My friends laugh at me for reading "that silly magazine," but I'll guarantee that I get more good out of one issue of A. S. than they get from all their popular magazines in a year.

Far be it from me to throw bricks at your authors or make unnecessary complaints, but I would like to see the science in the stories as accurate as possible.

In regard to these inaccuracies of scientific fact, (which I am glad are not very frequent), there is one that I have noticed so often that I have decided to mention it. It is this matter of rays, destructive and otherwise, that has become so popular with your authors. To make this matter clear will require some explanation.

The known range of the electro-magnetic spectrum is from a frequency of about 3×10^3 for alternating current, to about 3×10^{22} for cosmic rays. Taking these electro-magnetic waves by ascending frequencies we have:

(type of wave)	(vibrations per second)
Alternating Current....	up to 2×10^4
Hertzian Waves.....	2×10^4 " " 6×10^{10}
Unknown Band.....	6×10^{10} " " 8×10^{11}
Infra-Red or Heat Waves	8×10^{11} " " 4×10^{14}
Visible Light.....	4×10^{14} " " 7×10^{14}
Ultra-Violet.....	7×10^{14} " " 2×10^{16}
Unknown Band.....	2×10^{16} " " 6×10^{17}
X-Rays	6×10^{17} " " 3×10^{20}
Gamma Rays of	

Radium .....3 x 10^{19} " " 9 x 10^{20}
Cosmic Rays.....9 x 10^{20} " " ———?

Now here is what I am getting at. In this entire electro-magnetic spectrum as known, there are only two unexplored bands, one below the infra-red, and the other above the ultra-violet. Although some of the other bands of frequencies have not been explored as much as possible, at least we have a fairly good knowledge of their effect on various substances. The relatively narrow band of visible waves especially, have been thoroughly examined, due to the ease of manipulation and observation, yet there is no part of the spectrum in this region that could be used as a weapon of defence or offence, except for the fact that it makes objects visible, in which case it has some defensible value. It is true that an intense beam of white light will explode certain substances, such as a mixture of chlorine and hydrogen gases, yet it has no detrimental effect on human beings or on any of the materials used for structural purposes. Consequently, if rays that are destructive are ever discovered, they will certainly not be of a visible frequency. There is a possibility of course that such a ray would affect particles in the air so as to render them visible, but still, such a ray would be invisible in itself.

A powerful ray of infra-red light would possibly cause destructive effects by heating, and would probably make dust in the air visible by heating it to incandescence. In this case the ray would be visible due to the heated dust particles all along its path.

In such cases where the rays are invisible, it would be advantageous to project a beam of visible light along with it for purposes of aiming, just as tracer bullets are used with machine-gun ammunition to make the line of fire visible. However, even visible light can only be seen as a beam when there are enough particles of dust, fog, or smoke present to reflect and refract some of the light in such a direction as to strike the eye of the observer. If the air were perfectly free from such particles, even this method would not render the path of the ray visible.

In a vacuum, such as that of interstellar space, there would be no method of rendering the path of a ray visible at an angle from the line of projection. Even a beam of white light would be invisible, unless the observer were directly in its path looking at the projector. To make it visible as a beam would require thousands of reflecting particles to the cubic foot; so many in fact that sunlight would never be able to penetrate 93,000,000 miles of it to reach the earth. It would be entirely dispersed long before that. Yet in hundreds of your stories we read of flashing beams of light of every color, used by battling ships in space.

Here is an extract from your recent story "Triplanetary": "a full two-thirds of Roger's force was caught in that raging, incandescent beam," and in space at that. Yet Mr. Smith is a university graduate and should have a good knowledge of physics. However, the talk about defensive screens, at least the visible ones, is open for discussion. When waves of two different frequencies combine, they might possibly do so in such a way as to produce what might be called a beat-note, or a common frequency, that would lie within the visible part of the spectrum. It is in this way that two musical notes of different frequencies will combine and produce a beat note of an entirely different frequency. But even this visible wave, if it were produced, would be invisible unless the combined waves were reflected in some way to the eyes of the observer, and if they were at all destructive, that would hardly be desirable.

In another place, where the Super-Ship of Triplanetary is battling the Nevian space ship, we read of "spitting, high-tension sparks," again in space, which is probably a more perfect vacuum than we can at present obtain in even our best equipped laboratories. Surely everyone knows that high-tension sparks cannot leap through a vacuum. In modern vacuum tubes, after a certain degree of exhaustion has been obtained, sparks cease to leap across. Even in X-ray tubes where a certain amount of residual gas is always present, actual sparks cannot be produced, no matter how powerful the coils are. True, there is a discharge, the X-rays themselves, but these are far different from the sparks of a high-tension current. Such sparks cease long before the degree of vacuity that is present in X-ray tubes has been reached.

Perhaps Dr. Smith remembered this, yet deliberately made the mistake for the sake of the story. If so, I feel that he should have mentioned this in a footnote, and have given the true facts for those who wished them. If the reader does not care for the technical explanations, let him go on with the story and not read the footnotes. This is a method that used to be applied with success in some of the other science-fiction magazines.

Personally, I enjoy the story greatly, and I admit that it would have lost a good deal of interest if the "flashing beams and flaring screens" had been absent.

Good luck to your magazine, and here's hoping that the Canadian edition will become a permanent fixture.

G. Arksey,
10705-93 St.,
Edmonton, Alberta,
Canada.

(Rays are used in stories about space-war, because it is hard to see how a story could be vivid without some such element and we think that our authors are justified in using them. You undoubtedly have noticed that some of our correspondents are almost irritated at the Editor of this magazine expressing his disbelief of man getting to the moon. This makes us feel that we will have to be a little generous with rays and not object to our authors making a very picturesque in space, where rays are made the fighting elements and are opposed by invisible screens.—EDITOR.)

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115 East 23rd Street, New York, N. Y.

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